



Remedial Action Performance Six-Month Post-Injection

**Darwin Burn Pit
Dane County Regional Airport
International Lane and Darwin Road
Madison, Wisconsin**

**Fehr Graham Project No.: 24-1675
DNR BRRTS # 02-13-583366**

December 2025

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1.0 INTRODUCTION

Fehr Graham & Associates, LLC (Fehr Graham) has completed this *Remedial Action Performance Monitoring Report (RAPMR) – Six-Month Post Injection* for remedial activities for the Darwin Burn Pit (DBP) at Dane County Region Airport located at International Lane and Darwin Road in Madison, Wisconsin (the Site). The purpose of this report is to describe the completed groundwater performance monitoring activities and up to six (6) months post-remedial activities. Remedial activities included soil blending of Bioavailable Absorbent Media™ (BAM) and organoclay and injections of BAM into impacted groundwater. Further, the BAM treatment was augmented with microbes and electrochemical oxidation to enhance remedial effectiveness. A map from WSP Global Inc (WSP) is included in Appendix C that shows historical soil boring and monitoring well locations, along with details of the remedial action treatment areas that were completed in May 2025.

The groundwater performance monitoring activities include groundwater sampling completed in November 2025, six months post-injection. Evaluation of data has been performed within the framework of the Wisconsin Department of Natural Resources (WDNR) PFAS List - 3.1.21 and the NR 720 RCL Spreadsheet (updated October 2024). Both resources provide the recommended standards for specific perfluoroalkyl and polyfluoroalkyl substances (PFAS) compounds. The WDNR is currently in the rule-making process to include these recommended values in the Ch. NR 140 Wisconsin Administrative Code.

2.0 BACKGROUND

2.1 Site Location

The Site is approximately 3.5 acres and is located immediately north of Darwin Road on the west side of the DCRA property in Madison, Dane County, Wisconsin. (Figure 1 and Figure 2).

The property has been identified as:

Darwin Burn Pit
Darwin Road and International Lane
Madison, Wisconsin 53704
Parcel ID# 081030100903
Dane County, Wisconsin

2.2 Contacts

The project contacts are as follows:

Responsible Party

Dane County Regional Airport
Ryan Falch
4000 International Lane
Madison, Wisconsin 53704

Wisconsin Department of Natural Resources (WDNR) Project Manager

WDNR
Department of Remediation and Redevelopment
Stephan Ales
Hydrogeologist Program Coord
Wisconsin Department of Natural Resources
PO Box 7921
Madison, Wisconsin 53707-7921

Remediation Contractor:

ORIN Technologies, LLC.
Jacob Mirfield
405 Investment Court
Verona, Wisconsin 53593

Consultant

Fehr Graham
Dillon Plamann, PG
Environmental Project Manager
909 North 8th Street, Suite 101
Sheboygan, Wisconsin 53081

Analytical Laboratory:

Pace Analytical Laboratory
Chris Hyska
Project Manager
1241 Bellevue Street – Suite 9
Green Bay, Wisconsin 54302

2.3 Site Characterization

Site characterization information, including description of site location, regional geology and hydrogeology, site history, and remedial actions history, were included in the *Remedial Action Performance Monitoring Report – One-Month Post Injection* by Fehr Graham, dated November 3, 2025.

3.0 PERFORMANCE MONITORING ACTIVITIES

ORIN completed groundwater performance monitoring six-months post remedial activities in November 2025. Sample locations and the parameters ran for analysis were based upon the schedule outlined in the work plans submitted to WDNR by ORIN Technologies and Marquette University, with consulting firm WSP. PFAS sampling practices were provided by Pace Analytical Services (Pace) through a “PFAS Field Sampling Guide” for general guidance. A copy of the guide is included in Appendix A. The specific physical and chemical methods utilized for each performance monitoring event are described in the following sections.

3.1 Groundwater Performance Monitoring

A total of seven (7) groundwater monitoring wells and one (1) piezometer are present on the Site for IRM performance monitoring purposes. Four (4) monitoring wells were installed in historic investigations near the former DBP to evaluate the shallow portion of the water table (MW-1 through MW-4) and one (1) piezometer well was installed to evaluate the deeper portions of the unconfined aquifer (PZ-1). ORIN Technologies then installed three (3) additional monitoring wells in 2025 to support IRM implementation and performance monitoring. One (1) monitoring well was installed upgradient from the groundwater treatment area (MW-5), one (1) monitoring well was installed adjacent to the groundwater treatment area (MW-6), and one (1) monitoring well was installed downgradient from the groundwater treatment area (MW-7).

A total of eight (8) monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and PZ-1) were sampled during the six-month post-injection event. Sample locations can be found in Figure 3. Prior to groundwater sampling, groundwater levels were taken from the sampled groundwater monitoring wells. Recorded depth to water measurements for each monitoring well and the piezometer well are provided in *Table 3.1* below.

Table 3.1 Groundwater Elevations

Well ID	Total Depth (ft bgs)	Screen Length (ft)	Depth to water (ft btoc) (11/10/2025)
MW-1	20	10	---
MW-2	20	10	11.05
MW-3	25	10	16.30
MW-4	22	10	16.54
MW-5	22	10	15.75
MW-6	22	10	16.84
MW-7	22	10	14.35
PZ-1	45	10	16.66

--- Not collected

The groundwater monitoring wells were sampled using a low-flow peristaltic pump with dedicated high-density polyethylene (HDPE) tubing and a multi-parameter water quality meter. The peristaltic pump operated at a flow rate of 100 to 500 milliliters per minute, and low-flow water quality parameters (i.e., pH, conductivity, dissolved oxygen, and oxygen-reduction potential (ORP), as well as the depth to water (i.e., drawdown), were monitored at 3 to 5-minute intervals until the water quality parameters stabilized over three (3) successive monitoring intervals.

Groundwater samples were collected in laboratory-provided containers and stored on wet ice for transport to the laboratory, Pace Analytical, under standard chain-of-custody procedures. Groundwater well and piezometer samples were submitted for analysis of the following analytical suites:

- » PFAS by US EPA Method 1633
- » Inorganic Fluoride by method SM 4500-F-C

The specific sampling rationale for individual monitoring wells sampled during the six-month post-injection event is broken down in *Table 3.2*.

Table 3.2 Groundwater Sampling Activities

Well ID	Groundwater Sampling Event	Rationale
	6-mo (11/10/2025)	
MW-1	P	Upgradient
MW-2	P	Downgradient
MW-3	P, F	Source/Treatment Area
MW-4	P, F	Source/Treatment Area
MW-5	P, F	Upgradient: Edge of treatment area
MW-6	P, F	Source/Treatment Area
MW-7	P	Downgradient
PZ-1	P	Source/Treatment Area

P = PFAS; F = Inorganic fluoride

4.0 PERFORMANCE MONITORING RESULTS

4.1 Groundwater Performance Results

Groundwater analytical results were compared to Wisconsin Department of Natural Resources (WDNR) PFAS List - 3.1.21. The Enforcement Standard (ES) and Preventive Action Limit (PAL) listed in this table have been recommended by the Wisconsin Department of Health Services to the WDNR. The WDNR is in the rule making process to include these values into ch. NR 140 Wisconsin Administrative Code. Laboratory analytical reports can be found in Appendix B.

4.1.1 PFAS

PFAS analytical results were summarized below to include the cumulative concentrations of PFOA, PFOS, PFHxS and PFNA, as previous investigations determined these to be the main compounds of concern, as these are the compounds to detect in groundwater at levels that exceed the recommended ES and PALs. Compounds detected in groundwater at levels that exceed the recommended ES and PALs, and the associated sample location are shown in Figure 4. For comparison purposes, the previous pre- and post-injection sampling event results are shown in Figure 5.

ORIN completed the sampling event on November 10, 2025. The summary of results for MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and PZ-1 for November 10, 2025, sampling date, can be found in Table 4.1 through Table 4.5. Analytical results for all PFAS compounds and groundwater monitoring wells can be found in Table A.1.a.

Table 4.1 PFNA concentrations at Monitoring Wells

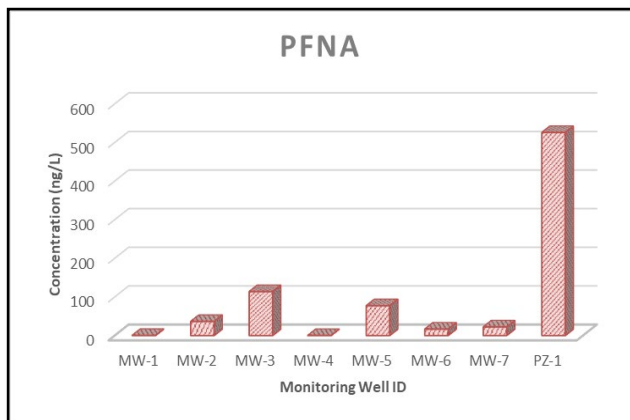


Table 4.2 PFOA concentrations at Monitoring Wells

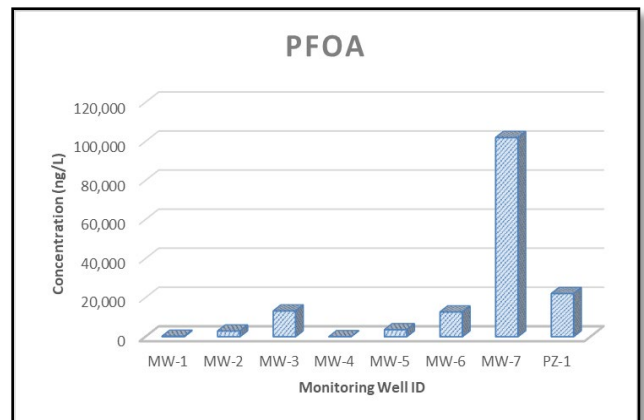


Table 4.3 PFHxS concentrations at Monitoring Wells

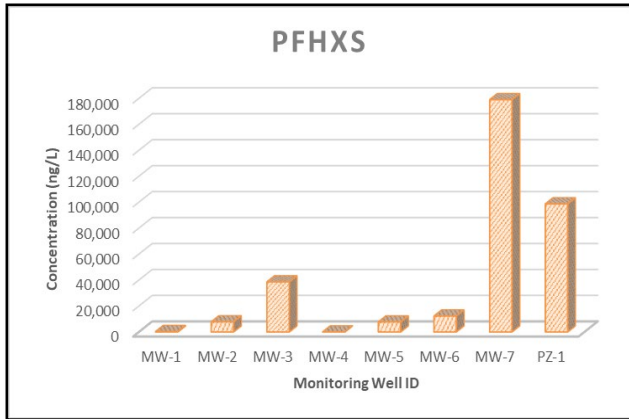
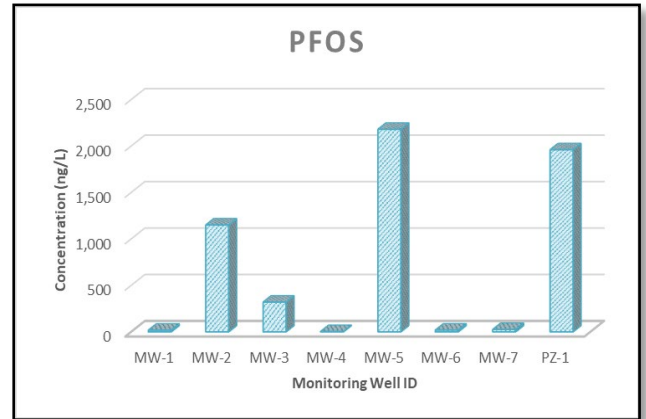


Table 4.4 PFOS concentrations at Monitoring Wells



4.1.2 Fluoride

ORIN completed groundwater sampling for fluoride analysis from MW-3, MW-4, MW-5, and MW-6 on November 10, 2025. The summary of results for fluoride analysis for each sampling event can be found in *Table 4.5.* through *Table 4.8.* Analytical results for fluoride can be found in Table A.1.b.

Table 4.5. MW-3 Fluoride Concentrations

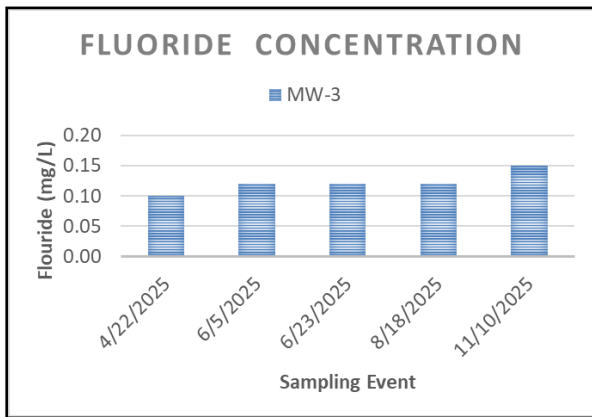


Table 4.6. MW-4 Fluoride Concentrations

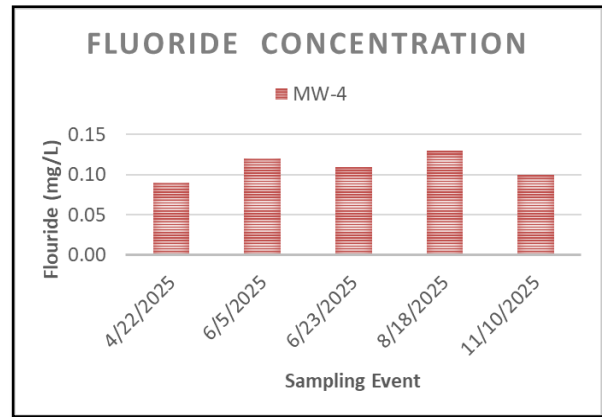


Table 4.7. MW-5 Fluoride Concentrations

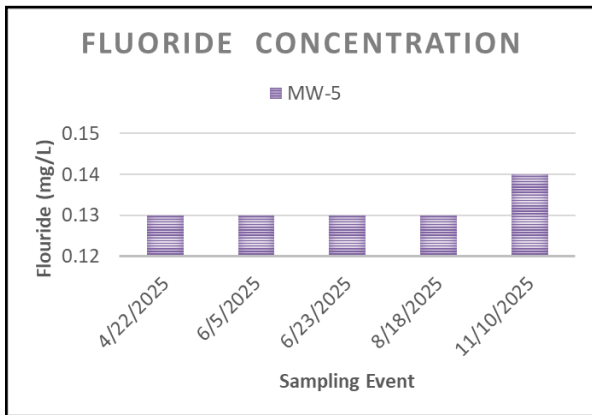
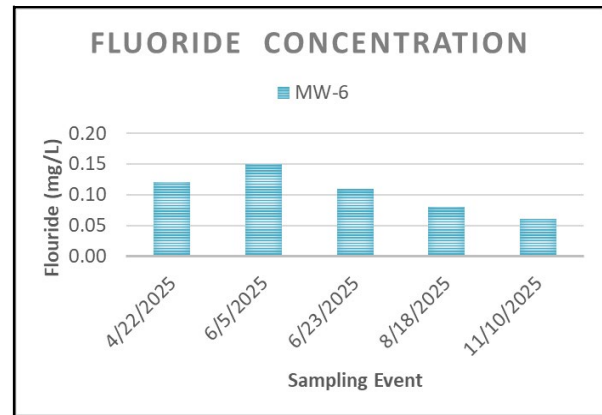


Table 4.8. MW-6 Fluoride Concentrations



5.0 CONCLUSIONS

Based on the results of the performance monitoring through 6-month post-IRM, Fehr Graham has made the following conclusions:

- » Monitoring wells MW-1 (233 ng/L), MW-2 (2,920 ng/L), MW-3 (13,200 ng/L), MW-5 (3,580 ng/L), MW-6 (19,100 ng/L), MW-7 (102,000 ng/L), and PZ-1 (22,100 ng/L) continue exceed the Ch. NR 140 Enforcement Standard for PFOA of 20 ng/L while MW-4 (2.7 ng/L) exceeds the Ch. NR 140 Preventative Action Limit for PFOA of 2 ng/L.
- » Monitoring wells MW-2 (36.6 ng/L), MW-3 (114 ng/L), MW-5 (77.5 ng/L), and PZ-1 (526 ng/L) exceed the Ch. NR 140 Enforcement Standard for PFNA of 30 ng/L. Monitoring well MW-6 (29.8 ng/L) and MW-7 (22.5 ng/L) exceed Ch. NR 140 Preventative Action Limit for PFNA of 3 ng/L. While MW-1 (0.41 ng/L) and MW-4 (0.31 ng/L) are below the Ch. NR 140 Preventative Action Limit for PFNA of 3 ng/L.
- » Monitoring wells MW-1 (293 ng/L), MW-2 (7,800 ng/L), MW-3 (38,600 ng/L), MW-5 (7,700 ng/L), MW-6 (21,500 ng/L), MW-7 (179,000 ng/L), and PZ-1 (98,700 ng/L) exceed the Ch. NR 140 Enforcement Standard for PFHxS of 40 ng/L, while MW-4 (5.0 ng/L) exceeds the Ch. NR 140 Preventative Action Limit for PFHxS of 4 ng/L.
- » Monitoring wells MW-2 (1,150 ng/L), MW-3 (320 ng/L), MW-5 (2,180 ng/L), MW-7 (25.6 ng/L), and PZ-1 (1,960 ng/L) exceed the Ch. NR 140 Enforcement Standard for PFOS of 20 ng/L, while MW-1 (17.8 ng/L) MW-4 (3.1 ng/L), and MW-6 (33.7 ng/L) exceeds the Ch. NR 140 Preventative Action Limit for PFOS of 2 ng/L.
- » Monitoring well MW-2 (6.9 ng/L) exceeds the Ch. NR 140 Preventative Action Limit for FOSA of 2 ng/L.
- » Fluoride concentrations remain stable in sampled wells in comparison to past sampling events.

6.0 PERFORMANCE MONITORING SCHEDULE

Additional performance-monitoring sampling for groundwater following this report will occur according to the following schedule.

Table 5.1 Performance groundwater monitoring schedule.

Well ID	Groundwater Sampling Event	Rationale
	1-yr* (Tentatively Scheduled for Late May 2026)	
MW-1	P	Upgradient
MW-2	P	Downgradient
MW-3	P, F	Source/Treatment Area
MW-4	P, F	Source/Treatment Area
MW-5	P, F	Upgradient: Edge of treatment area
MW-6	P, F	Source/Treatment Area
MW-7	P	Downgradient
PZ-1	P	Source/Treatment Area


**Post IRM implementation.*

Additional performance monitor sampling for soil following this report will occur 1-year post IRM implementation and is tentatively scheduled for late May 2026.

Additional Remedial Action Performance Monitoring Reports will be completed and submitted upon the receipt of laboratory analytical results following the 1-year post IRM soil and groundwater sampling event. The 1-year post IRM soil and groundwater sampling event Remedial Action Performance Monitoring Report will include final conclusions of the effectiveness of the IRM, and recommendations of further investigation and/or remediation activities.

7.0 NR 712.09 Submittal Certification

I, Dillon Plamann, hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.


Signature

December 22, 2025
Date

Figure 1

Site Location Map

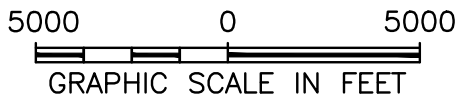
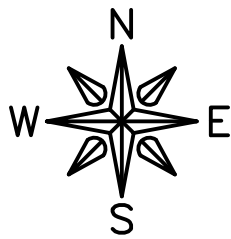
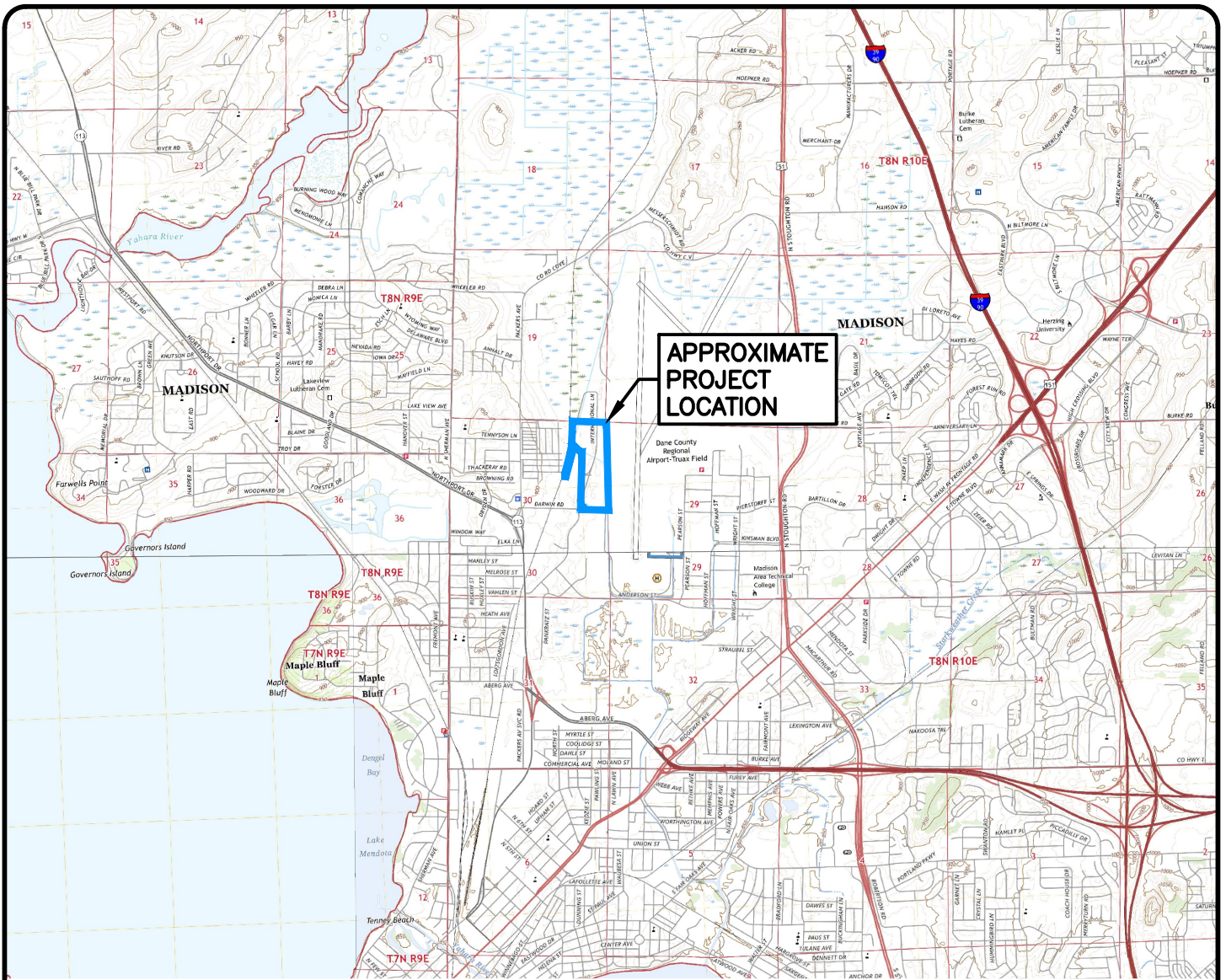


FIGURE 1
SITE LOCATION MAP
INTERNATIONAL LN. &
DARWIN RD.
MADISON, WI

12/15/25

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 IOWA
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Figure 2
Site Layout Map

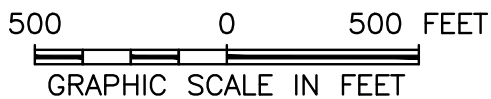
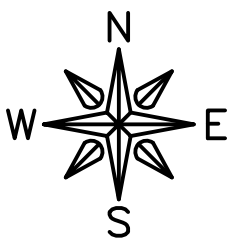
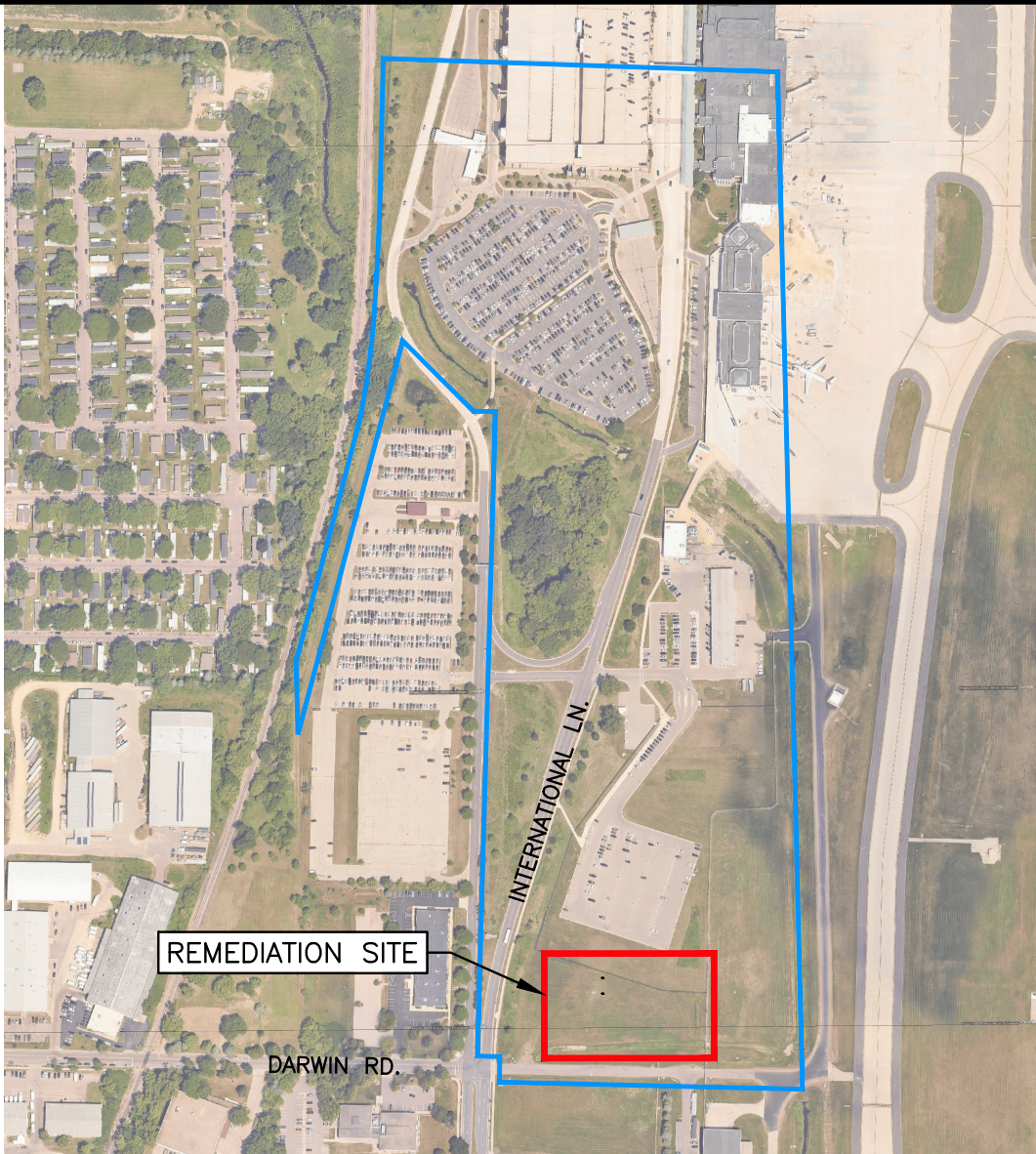


FIGURE 2
SITE LAYOUT MAP
INTERNATIONAL LN. &
DARWIN RD.
MADISON, WI

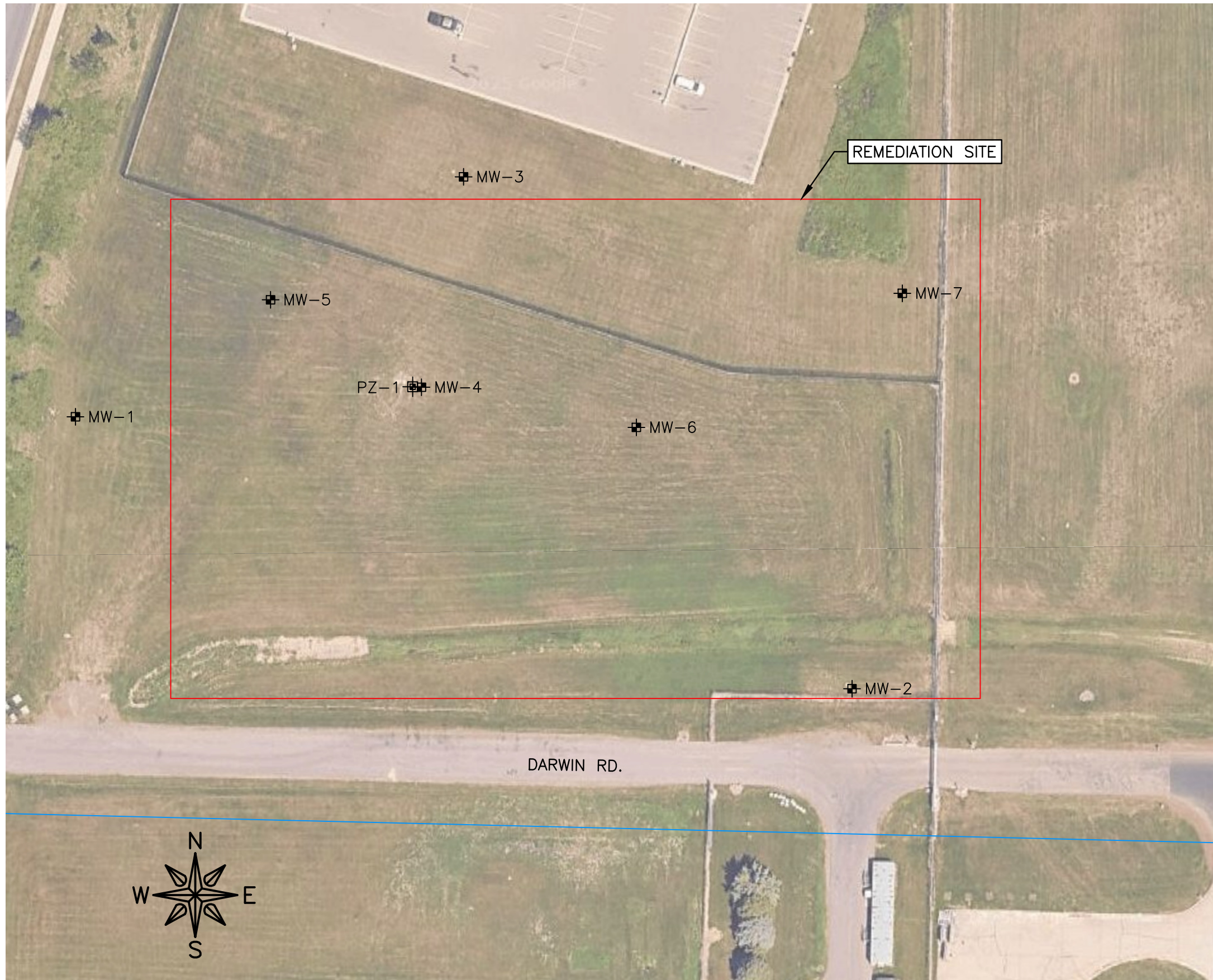
12/15/25

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 IOWA
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Figure 3

Sample Location Map



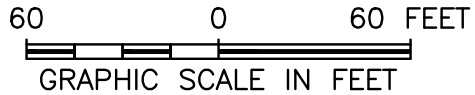
LEGEND

- ⊕ MONITORING WELL
- ⊕ PIEZOMETER WELL

NOTE: WELL LOCATIONS REFERENCED FROM WSP, 2025

FIGURE 3
 SAMPLE LOCATION MAP
 INTERNATIONAL LN. &
 DARWIN RD.
 MADISON, WI

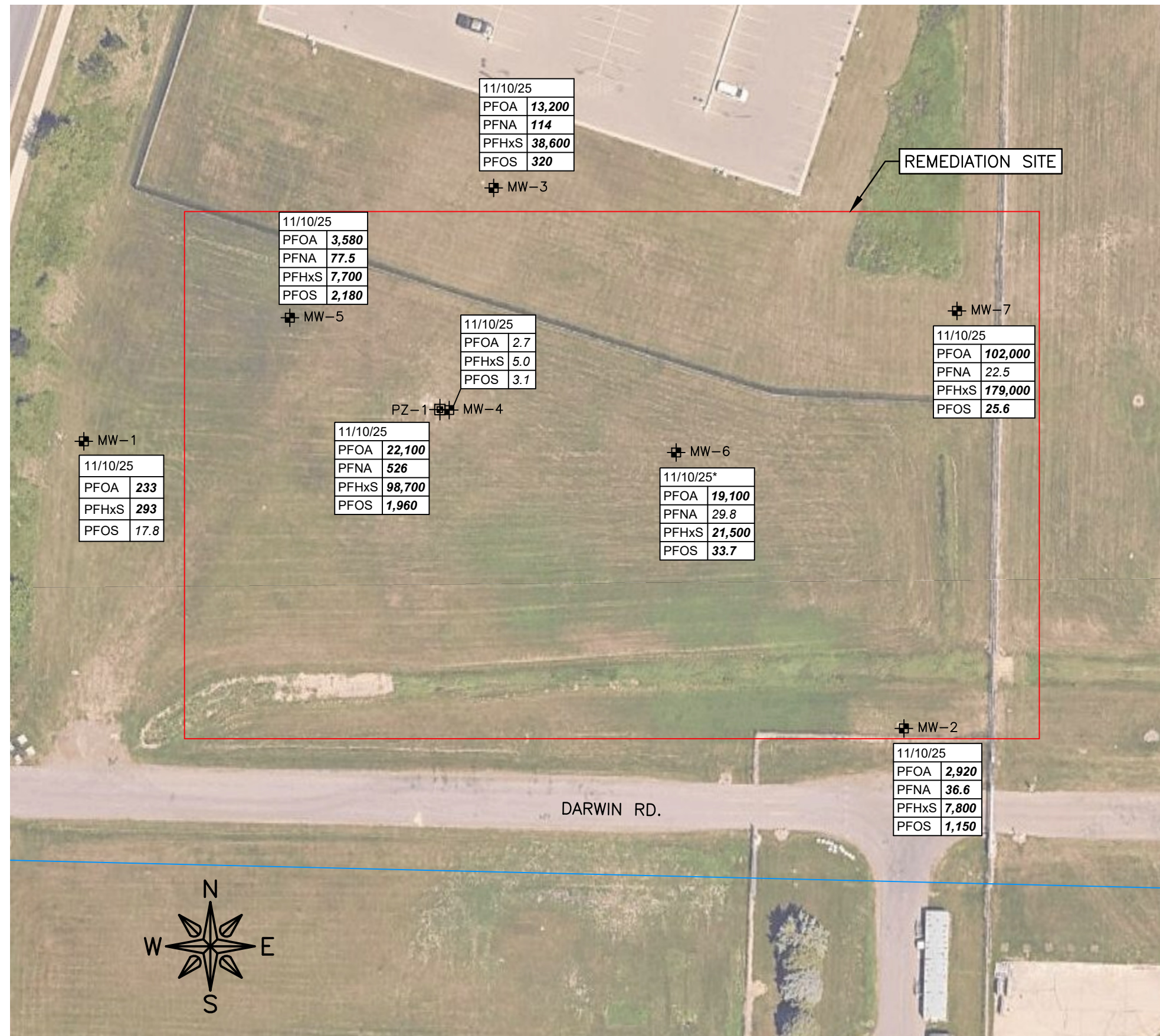
10/1/25



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ILLINOIS DESIGN FIRM NO. 194-003525

ILLINOIS
 IOWA
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Figure 4
Post Injection Groundwater Exceedance Map



LEGEND

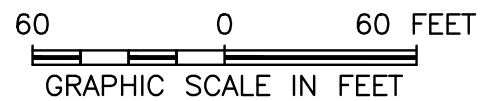
- ⊕ MONITORING WELL
- ⊕ PIEZOMETER WELL

PFOA PERFLUOROOCTANOIC ACID
 PFNA PERFLUORONONANOIC ACID
 PFHxS PERFLUOROHXANESULFONIC ACID
 PFOS PERFLUOROOACTANESULFONIC ACID

BOLD EXCEEDS ENFORCEMENT STANDARDS
ITALICS EXCEEDS PREVENTATIVE ACTION LIMITS
 DATE* INDICATES DUPLICATE SAMPLE. HIGHEST REPORTED RESULT SHOWN

NOTES:
 1. RESULTS REPORTED IN (ng/L)

FIGURE 4
 GROUNDWATER CHEMISTRY
 NOV. 10, 2025
 INTERNATIONAL LN. &
 DARWIN RD.
 MADISON, WI



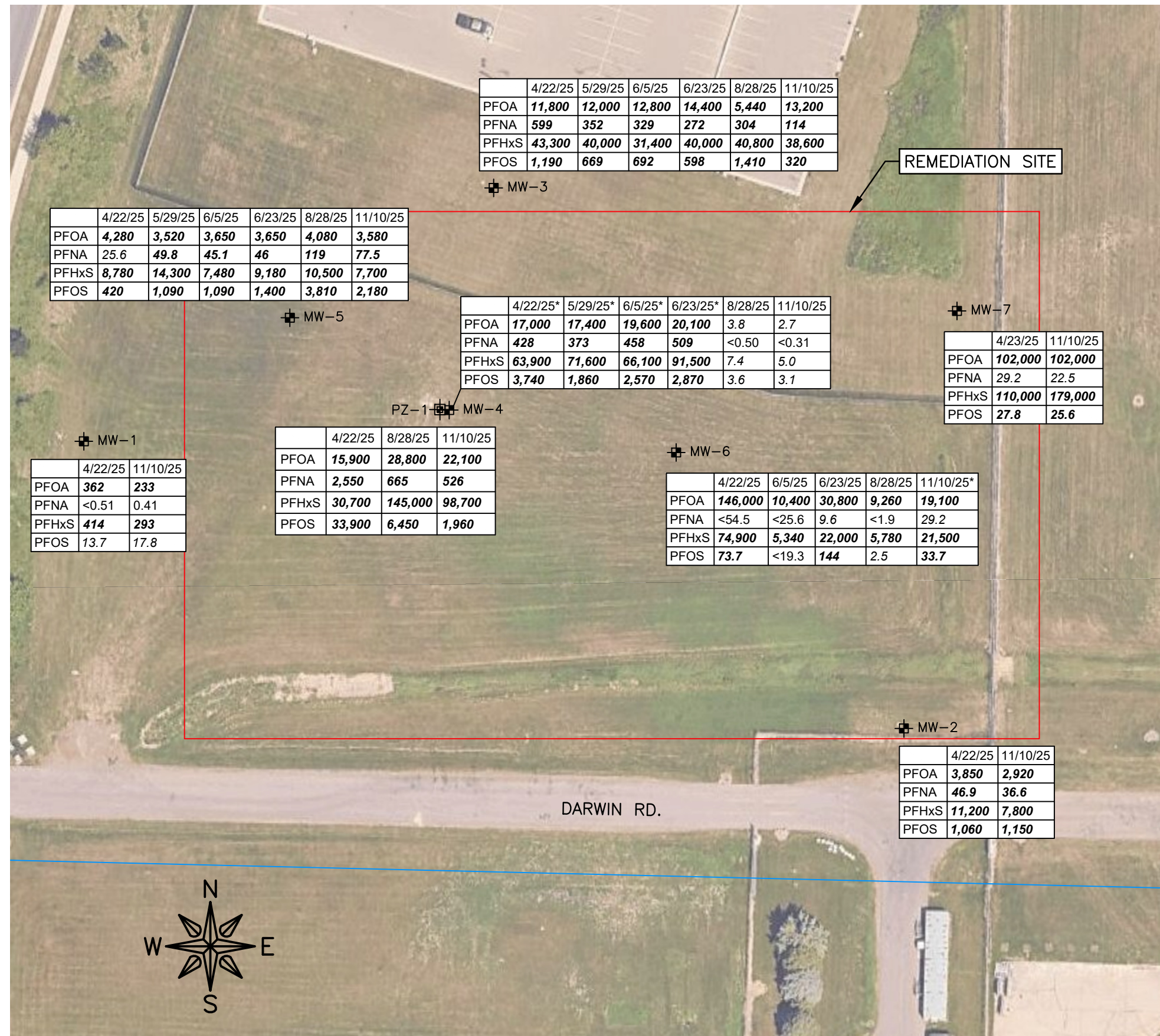
12/15/25

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Figure 5
Pre and Post Injection Groundwater Exceedance Map



	4/22/25	5/29/25	6/5/25	6/23/25	8/28/25	11/10/25
PFOA	11,800	12,000	12,800	14,400	5,440	13,200
PFNA	599	352	329	272	304	114
PFHxS	43,300	40,000	31,400	40,000	40,800	38,600
PFOS	1,190	669	692	598	1,410	320

	4/22/25	5/29/25	6/5/25	6/23/25	8/28/25	11/10/25
PFOA	4,280	3,520	3,650	3,650	4,080	3,580
PFNA	25.6	49.8	45.1	46	119	77.5
PFHxS	8,780	14,300	7,480	9,180	10,500	7,700
PFOS	420	1,090	1,090	1,400	3,810	2,180

	4/22/25*	5/29/25*	6/5/25*	6/23/25*	8/28/25	11/10/25
PFOA	17,000	17,400	19,600	20,100	3.8	2.7
PFNA	428	373	458	509	<0.50	<0.31
PFHxS	63,900	71,600	66,100	91,500	7.4	5.0
PFOS	3,740	1,860	2,570	2,870	3.6	3.1

	4/23/25	11/10/25
PFOA	102,000	102,000
PFNA	29.2	22.5
PFHxS	110,000	179,000
PFOS	27.8	25.6

	4/22/25	11/10/25
PFOA	362	233
PFNA	<0.51	0.41
PFHxS	414	293
PFOS	13.7	17.8

	4/22/25	8/28/25	11/10/25
PFOA	15,900	28,800	22,100
PFNA	2,550	665	526
PFHxS	30,700	145,000	98,700
PFOS	33,900	6,450	1,960

	4/22/25	6/5/25	6/23/25	8/28/25	11/10/25*
PFOA	146,000	10,400	30,800	9,260	19,100
PFNA	<54.5	<25.6	9.6	<1.9	29.2
PFHxS	74,900	5,340	22,000	5,780	21,500
PFOS	73.7	<19.3	144	2.5	33.7

	4/22/25	11/10/25
PFOA	3,850	2,920
PFNA	46.9	36.6
PFHxS	11,200	7,800
PFOS	1,060	1,150

LEGEND

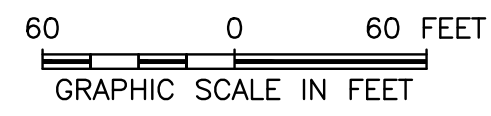
- ⊕ MONITORING WELL
- ⊕ PIEZOMETER WELL

- PFOA PERFLUOROOCTANOIC ACID
- PFNA PERFLUORONONANOIC ACID
- PFHxS PERFLUOROHEXANESULFONIC ACID
- PFOS PERFLUOROOCTANESULFONIC ACID

- BOLD** EXCEEDS ENFORCEMENT STANDARDS
- ITALICS* EXCEEDS PREVENTATIVE ACTION LIMITS
- DATE* INDICATES DUPLICATE SAMPLE. HIGHEST REPORTED RESULT SHOWN

NOTES:
1. RESULTS REPORTED IN (ng/L)

FIGURE 5
PRE AND POST INJECTION
GROUNDWATER EXCEEDANCE MAP
INTERNATIONAL LN. &
DARWIN RD.
MADISON, WI



12/15/25

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Table A.1.a

Groundwater Analytical Results – PFAS

Sample ID	EPA Acronym	Preventative Action Limit (PAL)*	Enforcement Standard (ES)*	MW-1		MW-2	
				4/22/2025	11/10/2025	4/23/2025	11/10/2025
				Clear	-	Clear	Clear
PFAS (ng/L)							
Fluorotelomer Carboxylic Acids (ng/L)							
3-Perfluoropropyl propanoic acid	3:3 FTCA	--	--	<2.1	<2.1	<2.1	<2.1
2H,2H,3H,3H-Perfluorooctanoic acid	5:3 FTCA	--	--	<9.3	<5.5	<9.2	<5.5
3-Perfluoroheptyl propanoic acid	7:3 FTCA	--	--	<11.1	<5.3	<11.0	<5.3
Carboxylic Acids (ng/L)							
Perfluorobutanoic acid [C4] (FC 23, Fluorad FC 23)	PFBA	2,000	10,000	7.4	12.5	246	134
Perfluoropentanoic acid [C5]	PFPeA	--	--	9.0	11.6	472	255
Perfluorohexanoic acid [C6]	PFHxA	30,000	150,000	20.4	22.2	806	468
Perfluoroheptanoic acid [C7]	PFHpA	--	--	17.5	13.3	241	160
Perfluorooctanoic acid [C8]	PFOA	2	20	362	233	3,850	2,920
Perfluorononanoic acid [C9]	PFNA	3	30	<0.51	0.41 J	46.9	36.6
Perfluorodecanoic acid [C10]	PFDA	60	300	<0.48	<0.37	1.7	1.9
Perfluoroundecanoic acid [C11]	PFUnA	600	3,000	<0.35	<0.36	<0.34	<0.35
Perfluorododecanoic acid [C12]	PFDoA	100	500	<0.48	<0.34	<0.47	<0.34
Perfluorotridecanoic acid [C13]	PFTriDA	--	--	<0.44	<0.33	<0.44	<0.33
Perfluorotetradecanoic acid [C14]	PFTeDA	2,000	10,000	<0.40	<0.27	<0.40	<0.27
Sulfonic Acids (ng/L)							
Perfluorobutanesulfonic acid [C4] (FC-98)	PFBS	90,000	450,000	5.1	6.2	445	280
Perfluoropentanesulfonic acid [C5]	PFPeS	--	--	2.8	3.0	266	388
Perfluorohexanesulfonic acid [C6]	PFHxS	4	40	414	293	11,200	7,800
Perfluoroheptanesulfonic acid [C7]	PFHpS	--	--	2.1	2.3	39.5	31.6
Perfluorooctanesulfonic acid [C8] (FC 95, Fluorad FC 95)	PFOS	2	20	13.7	17.8	1,060	1,150
Perfluorononanesulfonic acid [C9]	PFNS	--	--	<0.46	<0.46	<0.45	<0.46
Perfluorodecanesulfonic acid [C10]	PFDS	--	--	<0.67	<0.48	<0.66	<0.48
Perfluorododecanesulfonic acid [C12]	PFDoS	--	--	<0.34	<0.35	<0.33	<0.35
4:2 fluorotelomersulfonic acid [C6]	4:2 FTS	--	--	<1.6	<1.5	<1.5	<1.5
6:2 fluorotelomersulfonic acid [C8]	6:2 FTS	--	--	<1.8	<1.5	43.4	19.1
8:2 fluorotelomersulfonic acid [C10]	8:2 FTS	--	--	<1.6	<2.5	60.1	54.9
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols (ng/L)							
Perfluorooctanesulfonamide [C8]	FOSA	2	20	<0.48	<0.32	3.9	6.9
N-Methylperfluorooctanesulfonamide [C9] (Fluorad FX 12)	NMeFOSA	--	--	<0.48	<0.54	<0.47	<0.54
N-Ethylperfluorooctanesulfonamide [C10] (Alstar, Finitron, Fluramin, FX 12, Mirex S, Sulfluramid, Volcano)	NEtFOSA	2	20	<0.49	<0.32	<0.49	<0.32
N-Methylperfluorooctanesulfonamidoacetic acid [C11]	NMeFOSAA	--	--	<0.49	<0.49	<0.48	<0.49
N-Ethylperfluorooctanesulfonamidoacetic acid [C12]	NEtFOSAA	2	20	<0.65	<0.44	<0.64	<0.44
N-Methylperfluorooctanesulfonamidoethanol [C11]	NMeFOSE	--	--	<4.0	<2.9	<4.0	<2.9
N-Ethylperfluorooctanesulfonamidoethanol [C12] (FC-10, Fluorad FC 10)	NEtFOSE	2	20	<4.0	<3.9	<4.0	<3.9
Replacement Chemicals (ng/L)							
Hexafluoropropylene oxide dimer acid [C6] (FRD-903, GenX)	HFPO-DA	30	300	<1.7	<0.98	<1.7	<0.98
4,8-dioxa-3H-perfluorononanoic acid [C7]	ADONA	600	3,000	<1.8	<0.80	<1.8	<0.79
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid [C8]	9Cl-PF3ONS	--	--	<1.6	<1.2	<1.6	<1.2
11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid [C10]	11Cl-PF3OUdS	--	--	<1.9	<1.3	<1.9	<1.3
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	--	--	<1.3	<0.83	<1.3	<0.83
Perfluoro-3-methoxypropanoic acid	PFMPA	--	--	<0.60	<0.61	<0.60	<0.61
Perfluoro-4-methoxybutanoic acid	PFMBA	--	--	<0.75	<0.48	<0.75	<0.48
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	--	--	<0.67	<0.82	<0.67	<0.82

* = Source: Wisconsin Department of Natural Resources (WDNR) PFAS List - 1.1.21. The Enforcement Standard (ES) and Preventive Action Limit (PAL) listed in this table have been recommended by the Wisconsin Department of Health Services to the WDNR. The WDNR is in the rule making process to include these values into ch. NR 140 Wisconsin Administrative Code.

PFAS = perfluoroalkyl and polyfluoroalkyl substances

NT = Parameter not analyzed

-- = Standard not established

< = Less than laboratory method detection limit (MDL)

BOLD = Sample result exceeds the ch. NR 140 ES

Italics = Sample result exceeds the ch. NR 140 PAL

Italics / **BOLD** = Sample result exceeds the ch. NR 140 PAL and the ch. NR 140 ES

J = Estimated concentration at or above limit of detection & limit of quantification

Green highlighted row are the compounds included in the charts in Section 4.0 of the Remedial Action Documentation Report

Sample ID	EPA Acronym	Preventative Action Limit (PAL)*	Enforcement Standard (ES)*	MW-3						MW-4					
				4/22/2025	5/29/2025	6/5/2025	6/23/2025	8/28/2025	11/10/2025	4/22/2025	5/29/2025	6/5/2025	6/23/2025	8/28/2025	11/10/2025
				Clear	Clear	Cloudy	Clear	-	Clear	Clear	Clear	Clear	Cloudy	-	Clear
PFAS (ng/L)															
Fluorotelomer Carboxylic Acids (ng/L)															
3-Perfluoropropyl propanoic acid	3:3 FTCA	--	--	<110	<8.6	<4.3	<4.3	<2.1	<4.9	<230	<8.6	<4.4	<230	<2.1	<2.0
2H,2H,3H,3H-Perfluorooctanoic acid	5:3 FTCA	--	--	<480	<37.4	<18.9	<18.5	<9.3	<12.9	<1,000	<37.5	<19.3	<1,000	<9.2	<5.3
3-Perfluoroheptyl propanoic acid	7:3 FTCA	--	--	<570	<44.4	<22.4	<21.9	<11.0	<12.4	<1,190	<44.5	<22.9	<1,190	<10.9	<5.1
Carboxylic Acids (ng/L)															
Perfluorobutanoic acid [C4] (FC 23, Fluorad FC 23)	PFBA	2,000	10,000	1,150	<16.0	1,350	1,660	914	1,780	2,440	2,140	2,220	2,570	131	15.5
Perfluoropentanoic acid [C5]	PFPeA	--	--	3,770	4,320	4,510	6,240	3,300	6,140	10,500	9,050	9,170	10,900	19.8	1.4 J
Perfluorohexanoic acid [C6]	PFHxA	30,000	150,000	5,280	5,600	2,700	7,940	4,090	6,420	20,400	17,300	19,300	20,700	2.3	0.98 J
Perfluoroheptanoic acid [C7]	PFHpA	--	--	2,290	2,210	2,110	2,930	1,800	2,350	9,700	8,250	6,660	9,100	0.66 J	<0.35
Perfluorooctanoic acid [C8]	PFOA	2	20	11,800	12,000	12,800	14,400	5,440	13,200	16,300	17,400	19,000	20,100	3.8	2.7
Perfluorononanoic acid [C9]	PFNA	3	30	599	352	329	272	304	114	414	373	442	509	<0.50	<0.31
Perfluorodecanoic acid [C10]	PFDA	60	300	<24.8	<1.9	<0.97	<0.95	5.7	1.2 J	<51.7	<1.9	<1.0	<51.7	<0.47	<0.35
Perfluoroundecanoic acid [C11]	PFUnA	600	3,000	<17.8	<1.4	<0.70	<0.68	0.88 J	<0.83	<37.0	<1.4	<0.71	<37.0	<0.34	<0.34
Perfluorododecanoic acid [C12]	PFDoA	100	500	<24.5	<1.9	<0.96	<0.94	<0.47	<0.80	<51.0	<1.9	<0.98	<51.0	<0.47	<0.33
Perfluorotridecanoic acid [C13]	PFTriDA	--	--	<22.6	<1.8	<0.89	<0.87	<0.44	<0.76	<47.2	<1.8	<0.91	<47.2	<0.43	<0.32
Perfluorotetradecanoic acid [C14]	PFTeDA	2,000	10,000	<20.7	<1.6	<0.81	<0.80	<0.40	<0.64	<43.1	<1.6	<0.83	<43.1	<0.40	<0.26
Sulfonic Acids (ng/L)															
Perfluorobutanesulfonic acid [C4] (FC-98)	PFBS	90,000	450,000	1,480	1,680	1,670	2,440	1,170	2,200	5,170	4,780	3,840	4,960	0.81 J	<0.30
Perfluoropentanesulfonic acid [C5]	PFPeS	--	--	1,910	2,340	2,240	3,450	1,810	2,480	7,600	7,050	5,710	7,420	0.47 J	<0.26
Perfluorohexanesulfonic acid [C6]	PFHxS	4	40	43,300	40,000	31,400	40,000	40,800	38,600	63,900	71,600	58,200	91,500	7.4	5.0
Perfluoroheptanesulfonic acid [C7]	PFHpS	--	--	204	<105	109	83.9	113	35.8	723	822	896	1,230	<0.45	<0.41
Perfluorooctanesulfonic acid [C8] (FC 95, Fluorad FC 95)	PFOS	2	20	1,190	669	692	598	1,410	320	3,540	1,860	2,570	2,870	3.6	3.1
Perfluorononanesulfonic acid [C9]	PFNS	--	--	<23.6	<1.8	<0.93	<0.91	<0.59 J	<1.1	<49.2	<1.8	<0.95	<49.2	<0.45	<0.44
Perfluorodecanesulfonic acid [C10]	PFDS	--	--	<34.4	<2.7	<1.4	<1.3	<0.66	<1.1	<71.7	<2.7	<1.4	<71.7	<0.66	<0.46
Perfluorododecanesulfonic acid [C12]	PFDoS	--	--	<17.2	<1.3	<0.68	<0.66	<0.33	<0.81	<35.9	<1.3	<0.69	<35.9	<0.33	<0.33
4:2 fluorotelomersulfonic acid [C6]	4:2 FTS	--	--	<80.0	<6.2	<3.1	<3.1	<3.6	<3.6	<167	<6.2	<3.2	<167	<1.5	<1.5
6:2 fluorotelomersulfonic acid [C8]	6:2 FTS	--	--	<92.5	46.3	42.4	49.4	32.1	37.3	315 J	285	292	317 J	<1.8	<1.5
8:2 fluorotelomersulfonic acid [C10]	8:2 FTS	--	--	<83.0	<6.5	<3.3	<3.2	<1.6	<5.8	<173	<6.5	<3.3	<173	<1.6	<2.4
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols (ng/L)															
Perfluorooctanesulfonamide [C8]	FOSA	2	20	<24.4	<1.9	<0.96	<0.94	6.5	1.1 J	<50.9	<1.9	<0.98	<50.9	<0.47	<0.31
N-Methylperfluorooctanesulfonamide [C9] (Fluorad FX 12)	NMeFOSA	--	--	<24.6	<1.9	<0.97	<0.95	<0.48	<1.3	<51.4	<1.9	<8.3	<51.4	<0.47	<0.52
N-Ethylperfluorooctanesulfonamide [C10] (Astar, Finitron, Fluramin, FX 12, Mirex S, Sulfluramid, Volcano)	NEtFOSA	2	20	<25.3	<2.0	<0.99	<0.97	<0.49	<0.75	<52.7	<2.0	<1.0	<52.7	<0.48	<0.31
N-Methylperfluorooctanesulfonamidoacetic acid [C11]	NMeFOSAA	--	--	<25.0	<1.9	<0.98	<0.96	<0.48	<1.1	<52.1	<2.0	<1.0	<52.1	<0.48	<0.47
N-Ethylperfluorooctanesulfonamidoacetic acid [C12]	NEtFOSAA	2	20	<33.2	<2.6	<1.3	<1.3	<0.64	<1.0	<69.3	<2.6	<1.3	<69.3	<0.64	<0.42
N-Methylperfluorooctanesulfonamidoethanol [C11]	NMeFOSE	--	--	<206	<16.0	<8.1	<7.9	<4.0	<6.9	<428	<16.0	<8.3	<428	<3.9	<2.8
N-Ethylperfluorooctanesulfonamidoethanol [C12] (FC-10, Fluorad FC 10)	NEtFOSE	2	20	<206	<16.1	<8.1	<7.9	<4.0	<9.0	<430	<16.1	<8.3	<430	<4.0	<3.7
Replacement Chemicals (ng/L)															
Hexafluoropropylene oxide dimer acid [C6] (FRD-903, GenX)	HFPO-DA	30	300	<89.5	<7.0	<3.5	<3.4	<1.7	<2.3	<186	<7.0	<3.6	<186	<1.7	<0.95
4,8-dioxa-3H-perfluorononanoic acid [C7]	ADONA	600	3,000	<94.0	<7.3	<3.7	<3.6	<1.8	<1.9	<196	<7.3	<3.8	<196	<1.8	<0.77
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid [C8]	9Cl-PF3ONS	--	--	<84.5	<6.6	<3.3	<3.3	<1.6	<2.8	<176	<6.6	<3.4	<176	<1.6	<1.1
11-chloroheptafluoro-3-oxaundecane-1-sulfonic acid [C10]	11Cl-PF3OUDS	--	--	<97.0	<7.5	<3.8	<3.7	<1.9	<3.1	<202	<7.6	<3.9	<202	<1.9	<1.3
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	--	--	<65.5	<5.1	<2.6	<2.5	<1.3	<1.9	<136	<5.1	<2.6	<136	<1.3	<0.80
Perfluoro-3-methoxypropanoic acid	PFMPA	--	--	<31.1	<2.4	<1.2	2.4 J	1.9 J	2.6 J	<64.8	3.3 J	2.6 J	<64.8	<0.60	<0.59
Perfluoro-4-methoxybutanoic acid	PFMBA	--	--	<38.8	<3.0	<1.5	1.6 J	0.84 J	1.3 J	<80.7	3.4 J	3.5 J	<80.7	<0.74	<0.46
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	--	--	<34.6	<2.7	<1.4	<1.3	0.72 J	<1.9	<72.1	<2.7	2.3 J	<72.1	<0.66	<0.79

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PFAS = perfluoroalkyl and polyfluoroalkyl substances

NT = Parameter not analyzed

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BOLD = Sample result exceeds the ch. NR 140 ES

Italics = Sample result exceeds the ch. NR 140 PAL

Italics / **BOLD** = Sample result exceeds the ch. NR 140 PAL and the ch. NR 140 ES

J = Estimated concentration at or above limit of detection & limit of quantification

Green highlighted row are the compounds included in the charts in Section 4.0 of the Remedial Action Documentation Report

Sample ID	EPA Acronym	Preventative Action Limit (PAL)*	Enforcement Standard (ES)*	Duplicate (MW-4)				MW-5					
				4/22/2025	5/29/2025	6/5/2025	6/23/2025	4/22/2025	5/29/2025	6/5/2025	6/23/2025	8/28/2025	11/10/2025
				Clear	Clear	Clear	Cloudy	Clear	Clear	Clear	Clear	-	Clear
PFAS (ng/L)													
Fluorotelomer Carboxylic Acids (ng/L)													
3-Perfluoropropyl propanoic acid	3:3 FTCA	--	--	<230	<2.2	<4.4	<257	<22.5	<2.2	<2.2	<2.2	5.6 J	2.5 J
2H,2H,3H,3H-Perfluorooctanoic acid	5:3 FTCA	--	--	<1,000	<9.6	<19.3	<1,120	<97.9	<9.4	<9.5	<9.4	12.5 J	13.3 J
3-Perfluoroheptyl propanoic acid	7:3 FTCA	--	--	<1,190	<11.4	<22.9	<1,330	<116	<11.2	<11.3	<11.2	<10.8	<5.3
Carboxylic Acids (ng/L)													
Perfluorobutanoic acid [C4] (FC 23, Fluorad FC 23)	PFBA	2,000	10,000	2,580	271	2,120	2,590	275	273	309	400	403	385
Perfluoropentanoic acid [C5]	PFPeA	--	--	10,900	594	8,890	10,900	569	615	699	919	979	896
Perfluorohexanoic acid [C6]	PFHxA	30,000	150,000	20,400	673	16,000	20,300	759	687	833	1,100	1,230	1,010
Perfluoroheptanoic acid [C7]	PFHpA	--	--	9,760	810	6,980	8,650	845	799	748	1,130	866	853
Perfluorooctanoic acid [C8]	PFOA	2	20	17,000	3,400	19,600	19,100	4,280	3,520	3,650	3,650	4,080	3,580
Perfluorononanoic acid [C9]	PFNA	3	30	428	47.4	458	475	25.6	49.8	45.1	46	119	77.5
Perfluorodecanoic acid [C10]	PFDA	60	300	<51.7	<0.50	<0.99	<57.7	<5.1	<0.49	<0.49	<0.49	<0.47	<0.37
Perfluoroundecanoic acid [C11]	PFUnA	600	3,000	<37.0	<0.36	<0.71	<41.3	<3.6	<0.35	<0.35	<0.35	<0.34	<0.36
Perfluorododecanoic acid [C12]	PFDoA	100	500	<51.0	<0.49	<0.98	<57.0	<5.0	<0.48	<0.49	<0.48	<0.46	<0.35
Perfluorotridecanoic acid [C13]	PFTriDA	--	--	<47.2	<0.45	<0.91	<52.7	<4.6	<0.44	<0.45	<0.44	<0.43	<0.33
Perfluorotetradecanoic acid [C14]	PFTeDA	2,000	10,000	<43.1	<0.42	<0.83	<48.1	<4.2	<0.41	<0.41	<0.41	<0.39	<0.28
Sulfonic Acids (ng/L)													
Perfluorobutanesulfonic acid [C4] (FC-98)	PFBS	90,000	450,000	5,460	174	4,010	4,700	190	179	192	218	192	177
Perfluoropentanesulfonic acid [C5]	PFPeS	--	--	7,800	348	9,100	7,470	217	430	363	438	262	332
Perfluorohexanesulfonic acid [C6]	PFHxS	4	40	60,100	9,640	66,100	80,000	8,780	14,300	7,480	9,180	10,500	7,700
Perfluoroheptanesulfonic acid [C7]	PFHpS	--	--	759	184	808	1,110	175	182	192	210	326	272
Perfluorooctanesulfonic acid [C8] (FC 95, Fluorad FC 95)	PFOS	2	20	3,740	1,230	2,450	2,460	420	1,160	1,090	1,400	3,810	2,180
Perfluorononanesulfonic acid [C9]	PFNS	--	--	<49.2	<0.47	<0.95	<54.9	<4.8	<0.46	<0.47	<0.46	<0.45	<0.46
Perfluorodecanesulfonic acid [C10]	PFDS	--	--	<71.7	<0.69	<1.4	<80.0	<7.0	<0.67	<0.68	<0.68	<0.65	<0.49
Perfluorododecanesulfonic acid [C12]	PFDoS	--	--	<35.9	<0.35	<0.69	<40.1	<3.5	<0.34	<0.34	<0.34	<0.33	<0.35
4:2 fluorotelomersulfonic acid [C6]	4:2 FTS	--	--	<167	<1.6	<3.2	<186	<16.3	<1.6	<1.6	<1.6	<1.5	<1.6
6:2 fluorotelomersulfonic acid [C8]	6:2 FTS	--	--	339 J	1,780	279	329 J	1,530	1,800	1,810	2,870	2,870	4180
8:2 fluorotelomersulfonic acid [C10]	8:2 FTS	--	--	<173	17.4	<3.3	<193	<16.9	18.6	21.1	23	33.6	24.5
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols (ng/L)													
Perfluorooctanesulfonamide [C8]	FOSA	2	20	<50.9	<0.49	1.3 J	<56.9	<5.0	<0.48	<0.48	<0.48	0.63 J	0.45 J
N-Methylperfluorooctanesulfonamide [C9] (Fluorad FX 12)	NMeFOSA	--	--	<51.4	<0.49	<0.99	<57.3	<5.0	<0.48	<0.49	<0.48	<0.47	<0.54
N-Ethylperfluorooctanesulfonamide [C10] (Alstar, Finitron, Fluramin, FX 12, Mirex S, Sulfluramid, Volcano)	NEtFOSA	2	20	<52.7	<0.51	<1.0	<58.8	<5.2	<0.50	<0.50	<0.50	<0.48	<0.32
N-Methylperfluorooctanesulfonamidoacetic acid [C11]	NMeFOSAA	--	--	<52.1	<0.50	<1.0	<58.1	<5.1	<0.49	<0.50	<0.49	<0.47	<0.49
N-Ethylperfluorooctanesulfonamidoacetic acid [C12]	NEtFOSAA	2	20	<69.3	<0.67	<1.3	<77.3	<6.8	<0.65	<0.66	<0.65	<0.63	<0.44
N-Methylperfluorooctanesulfonamidoethanol [C11]	NMeFOSE	--	--	<428	<4.1	<8.2	<478	<41.9	<4.0	<4.1	<4.0	<3.9	<3.0
N-Ethylperfluorooctanesulfonamidoethanol [C12] (FC-10, Fluorad FC 10)	NEtFOSE	2	20	<430	<4.1	<8.3	<480	<42.1	<4.0	<4.1	<4.1	<3.9	<3.9
Replacement Chemicals (ng/L)													
Hexafluoropropylene oxide dimer acid [C6] (FRD-903, GenX)	HFPO-DA	30	300	<186	<1.8	<3.6	<208	<18.2	<1.8	<1.8	<1.8	<1.7	<0.99
4,8-dioxa-3H-perfluorononanoic acid [C7]	ADONA	600	3,000	<196	<1.9	<3.8	<219	<19.1	<1.8	<1.9	<1.8	<1.8	<0.80
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid [C8]	9Cl-PF3ONS	--	--	<176	<1.7	<3.4	<197	<17.2	<1.7	<1.7	<1.7	<1.6	<1.2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid [C10]	11Cl-PF3OUdS	--	--	<202	<1.9	<3.9	<226	<19.8	<1.9	<1.9	<1.9	<1.8	<1.3
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	--	--	<136	<1.3	<2.6	<152	<13.3	<1.3	<1.3	<1.3	<1.2	<0.83
Perfluoro-3-methoxypropanoic acid	PFMPA	--	--	<64.8	<0.62	2.7 J	87.4 J	<6.3	<0.61	<0.62	<0.61	0.81 J	0.65 J
Perfluoro-4-methoxybutanoic acid	PFMBA	--	--	<80.7	<0.78	4.0 J	<90.1	<7.9	<0.76	<0.77	<0.76	<0.73	<0.48
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	--	--	<72.1	<0.69	2.5 J	<80.5	<7.0	<0.68	<0.69	<0.68	<0.66	<0.83

* = Source: Wisconsin Department of Natural Resources (WDNR) PFAS List - 1.1.21. The Enforcement Standard (ES) and Preventive Action Limit (PAL) listed in this table have been recommended by the Wisconsin Department of Health Services to the WDNR. The WDNR is in the rule making process to include these values into ch. NR 140 Wisconsin Administrative Code.

PFAS = perfluoroalkyl and polyfluoroalkyl substances

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< = Less than laboratory method detection limit (MDL)

BOLD = Sample result exceeds the ch. NR 140 ES

Italics = Sample result exceeds the ch. NR 140 PAL

Italics / **BOLD** = Sample result exceeds the ch. NR 140 PAL and the ch. NR 140 ES

J = Estimated concentration at or above limit of detection & limit of quantification

Green highlighted row are the compounds included in the charts in Section 4.0 of the Remedial Action Documentation Report

Sample ID	EPA Acronym	Preventative Action Limit (PAL)*	Enforcement Standard (ES)*	MW-6						Duplicate (MW-6)
				4/22/2025	5/29/2025	6/5/2025	6/23/2025	8/28/2025	11/10/2025	11/10/2025
				Clear	NA	Black, Purged	Clear	-	Grey	-
PFAS (ng/L)										
Fluorotelomer Carboxylic Acids (ng/L)										
3-Perfluoropropyl propanoic acid	3:3 FTCA	--	--	<230	NT	<108	38.6	<8.2	5.2 J	5.2 J
2H,2H,3H,3H-Perfluorooctanoic acid	5:3 FTCA	--	--	<1,000	NT	<471	166	<35.7	<13.0	<12.4
3-Perfluoroheptyl propanoic acid	7:3 FTCA	--	--	<1,190	NT	<559	49.3	<42.3	<12.5	<11.9
Carboxylic Acids (ng/L)										
Perfluorobutanoic acid [C4] (FC 23, Fluorad FC 23)	PFBA	2,000	10,000	4,350	NT	797	2,950	1,290	994	1,040
Perfluoropentanoic acid [C5]	PFPeA	--	--	14,800	NT	2,490	9,660	1,940	2,040	2,070
Perfluorohexanoic acid [C6]	PFHxA	30,000	150,000	37,000	NT	5,610	21,600	4,410	3,540	4,240
Perfluoroheptanoic acid [C7]	PFHpA	--	--	5,430	NT	374	1,710	354	568	784
Perfluorooctanoic acid [C8]	PFOA	2	20	146,000	NT	10,400	30,800	9,260	12,700	19,100
Perfluorononanoic acid [C9]	PFNA	3	30	<54.5	NT	<25.6	9.6	<1.9	16.8	29.8
Perfluorodecanoic acid [C10]	PFDA	60	300	<51.7	NT	<24.3	1.6	<1.8	<0.86	<0.82
Perfluoroundecanoic acid [C11]	PFUnA	600	3,000	<37.0	NT	<17.4	1.7	<1.3	<0.84	<0.79
Perfluorododecanoic acid [C12]	PFDoA	100	500	<51.0	NT	<24.0	2.1	<1.8	<0.81	<0.77
Perfluorotridecanoic acid [C13]	PFTriDA	--	--	<47.2	NT	<22.2	2.2	<1.7	<0.77	<0.73
Perfluorotetradecanoic acid [C14]	PFTeDA	2,000	10,000	<43.1	NT	<20.3	2.6	<1.5	<0.65	<0.61
Sulfonic Acids (ng/L)										
Perfluorobutanesulfonic acid [C4] (FC-98)	PFBS	90,000	450,000	7,630	NT	1,050	4,850	707	714	772
Perfluoropentanesulfonic acid [C5]	PFPeS	--	--	4,170	NT	444	2,180	444	608	957
Perfluorohexanesulfonic acid [C6]	PFHxS	4	40	74,900	NT	5,340	22,000	5,780	12,300	21,500
Perfluoroheptanesulfonic acid [C7]	PFHpS	--	--	187	NT	<22.8	32.2	2.8 J	18.2	30.8
Perfluorooctanesulfonic acid [C8] (FC 95, Fluorad FC 95)	PFOS	2	20	73.7 J	NT	<19.3	144	2.5 J	18.5	33.7
Perfluorononanesulfonic acid [C9]	PFNS	--	--	<49.2	NT	<23.1	1.2 J	<1.8	<1.1	<1.0
Perfluorodecanesulfonic acid [C10]	PFDS	--	--	<71.7	NT	<33.7	1.1 J	<2.6	<1.1	<1.1
Perfluorododecanesulfonic acid [C12]	PFDoS	--	--	0	NT	<16.9	0.87 J	<1.3	<0.82	<0.78
4:2 fluorotelomersulfonic acid [C6]	4:2 FTS	--	--	<167	NT	<78.4	21	<5.9	3.8 J	3.7 J
6:2 fluorotelomersulfonic acid [C8]	6:2 FTS	--	--	5,730	NT	272 J	1,340	260	278	380
8:2 fluorotelomersulfonic acid [C10]	8:2 FTS	--	--	<173	NT	<81.4	9.1	<6.2	<5.9	<5.6
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols (ng/L)										
Perfluorooctanesulfonamide [C8]	FOSA	2	20	<50.9	NT	<24.0	2.3	<1.8	<0.75	<0.71
N-Methylperfluorooctanesulfonamide [C9] (Fluorad FX 12)	NMeFOSA	--	--	<51.4	NT	<24.2	2	<1.8	<1.3	<1.2
N-Ethylperfluorooctanesulfonamide [C10] (Alstar, Finitron, Fluramin, FX 12, Mirex S, Sulfluramid, Volcano)	NEtFOSA	2	20	<52.7	NT	<24.8	2.1	<1.9	<0.76	<0.72
N-Methylperfluorooctanesulfonamidoacetic acid [C11]	NMeFOSAA	--	--	<52.1	NT	<24.5	1.8	<1.9	<1.2	<1.1
N-Ethylperfluorooctanesulfonamidoacetic acid [C12]	NEtFOSAA	2	20	<69.3	NT	<32.6	1.8	<2.5	<1.0	<0.98
N-Methylperfluorooctanesulfonamidoethanol [C11]	NMeFOSE	--	--	<428	NT	<201	22.2	<15.3	<6.9	<6.6
N-Ethylperfluorooctanesulfonamidoethanol [C12] (FC-10, Fluorad FC 10)	NEtFOSE	2	20	<430	NT	<202	33.3	<15.3	<9.1	<8.6
Replacement Chemicals (ng/L)										
Hexafluoropropylene oxide dimer acid [C6] (FRD-903, GenX)	HFPO-DA	30	300	<186	NT	<87.7	8.5	<6.6	<2.3	<2.2
4,8-dioxa-3H-perfluorononanoic acid [C7]	ADONA	600	3,000	<196	NT	<92.2	8.9	<7.0	<1.9	<1.8
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid [C8]	9Cl-PF3ONS	--	--	<176	NT	<82.8	6.3	<6.3	<2.8	<2.7
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid [C10]	11Cl-PF3OUdS	--	--	<202	NT	<95.1	4.1 J	<7.2	<3.1	<3.0
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	--	--	<136	NT	<64.2	9.7	<4.9	<2.0	<1.9
Perfluoro-3-methoxypropanoic acid	PFMPA	--	--	<64.8	NT	<30.5	20.8	2.9 J	2.1 J	2.9 J
Perfluoro-4-methoxybutanoic acid	PFMBA	--	--	<80.7	NT	<38.0	40.7	3.6 J	2.4 J	2.1 J
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	--	--	<72.1	NT	<33.9	18.6	<2.6	<1.9	<1.8

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PFAS = perfluoroalkyl and polyfluoroalkyl substances

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Italics / **BOLD** = Sample result exceeds the ch. NR 140 PAL and the ch. NR 140 ES

J = Estimated concentration at or above limit of detection & limit of quantification

Green highlighted row are the compounds included in the charts in Section 4.0 of the Remedial Action Documentation Report

Sample ID	EPA Acronym	Preventative Action Limit (PAL)*	Enforcement Standard (ES)*	MW-7		MW-8	MW-9	MW-10	PZ-1		
				4/23/2025	11/10/2025	8/28/2025	8/28/2025	8/28/2025	4/22/2025	8/28/2025	11/10/2025
				Clear	Clear	-	-	-	Clear	-	Clear
PFAS (ng/L)											
Fluorotelomer Carboxylic Acids (ng/L)											
3-Perfluoropropyl propanoic acid	3:3 FTCA	--	--	401	381	<2.1	<8.3	3.1 J	<113	<4.3	<4.0
2H,2H,3H,3H-Perfluorooctanoic acid	5:3 FTCA	--	--	<36.5	42.8 J	<9.3	<36.2	<9.2	<490	<18.7	<10.4
3-Perfluoroheptyl propanoic acid	7:3 FTCA	--	--	<43.2	<10.0	<11.0	<42.9	<10.9	<582	<22.2	<10.0
Carboxylic Acids (ng/L)											
Perfluorobutanoic acid [C4] (FC 23, Fluorad FC 23)	PFBA	2,000	10,000	9,480	9,690	617	116	202	1,530	2,200	2,080
Perfluoropentanoic acid [C5]	PFPeA	--	--	42,400	42,400	1,700	117	601	6,750	9,170	8,100
Perfluorohexanoic acid [C6]	PFHxA	30,000	150,000	60,000	67,900	1,400	128	1,060	12,200	12,800	11,700
Perfluoroheptanoic acid [C7]	PFHpA	--	--	12,900	14,500	693	25.5	445	3,520	8,060	6,640
Perfluorooctanoic acid [C8]	PFOA	2	20	102,000	102,000	3,570	212	5,980	15,900	28,800	22,100
Perfluorononanoic acid [C9]	PFNA	3	30	29.2	22.5	461	<2.0	9.3	2,550	665	526
Perfluorodecanoic acid [C10]	PFDA	60	300	<1.9	<0.69	0.58 J	<1.9	0.96 J	<25.3	<0.97	<0.69
Perfluoroundecanoic acid [C11]	PFUnA	600	3,000	<1.3	<0.67	<0.34	<1.3	<0.34	<18.1	<0.69	<0.67
Perfluorododecanoic acid [C12]	PFDoA	100	500	<1.9	<0.65	<0.47	<1.8	<0.47	<25.0	<0.96	<0.65
Perfluorotridecanoic acid [C13]	PFTriDA	--	--	<1.7	<0.62	<0.44	<1.7	<0.43	<23.1	<0.88	<0.62
Perfluorotetradecanoic acid [C14]	PFTeDA	2,000	10,000	<1.6	<0.52	<0.40	<1.6	<0.40	<21.1	<0.81	<0.52
Sulfonic Acids (ng/L)											
Perfluorobutanesulfonic acid [C4] (FC-98)	PFBS	90,000	450,000	14,100	16,200	335	17.6	584	2,630	4,040	3,250
Perfluoropentanesulfonic acid [C5]	PFPeS	--	--	9,240	13,600	793	14.5	243	2,280	7,120	6,440
Perfluorohexanesulfonic acid [C6]	PFHxS	4	40	110,000	179,000	31,400	388	5,390	30,700	145,000	98,700
Perfluoroheptanesulfonic acid [C7]	PFHpS	--	--	132	116	137	<1.8	182	320	930	1,220
Perfluorooctanesulfonic acid [C8] (FC 95, Fluorad FC 95)	PFOS	2	20	27.8	25.6	2,990	5.5 J	143	33,900	6,450	1,960
Perfluorononanesulfonic acid [C9]	PFNS	--	--	<1.8	<0.86	<0.45	<1.8	<0.45	<24.1	<0.92	<0.86
Perfluorodecanesulfonic acid [C10]	PFDS	--	--	<2.6	<0.91	<0.66	<2.6	<0.66	<35.1	<1.3	<0.91
Perfluorododecanesulfonic acid [C12]	PFDoS	--	--	<1.3	<0.65	<0.33	<1.3	<0.33	<17.6	<0.67	<0.65
4:2 fluorotelomersulfonic acid [C6]	4:2 FTS	--	--	125	135	<1.5	<6.0	<1.5	<81.6	4.4 J	<2.9
6:2 fluorotelomersulfonic acid [C8]	6:2 FTS	--	--	7,780	8,400	7.4	28.9	62.9	146 J	454	264
8:2 fluorotelomersulfonic acid [C10]	8:2 FTS	--	--	<6.3	<4.7	<1.6	<6.2	<1.6	<84.7	<3.2	<4.7
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols (ng/L)											
Perfluorooctanesulfonamide [C8]	FOSA	2	20	<1.9	<0.60	1.2 J	<1.8	3.1	<24.9	1.1 J	<0.60
N-Methylperfluorooctanesulfonamide [C9] (Fluorad FX 12)	NMeFOSA	--	--	<1.9	<1.0	<0.47	<1.9	<0.47	<25.2	<0.96	<1.0
N-Ethylperfluorooctanesulfonamide [C10] (Aldar, Finiron, Fluramin, FX 12, Mirex S, Sulfluramid, Volcano)	NEtFOSA	2	20	<1.9	<0.61	<0.49	<1.9	<0.49	<25.8	<0.99	<0.61
N-Methylperfluorooctanesulfonamidoacetic acid [C11]	NMeFOSAA	--	--	<1.9	<0.93	<0.48	<1.9	<0.48	<25.5	<0.98	<0.93
N-Ethylperfluorooctanesulfonamidoacetic acid [C12]	NEtFOSAA	2	20	<2.5	<0.83	<0.64	<2.5	<0.64	<33.9	<1.3	<0.83
N-Methylperfluorooctanesulfonamidoethanol [C11]	NMeFOSE	--	--	<15.6	<5.5	<4.0	<15.5	<3.9	<210	<8.0	<5.5
N-Ethylperfluorooctanesulfonamidoethanol [C12] (FC-10, Fluorad FC 10)	NEtFOSE	2	20	<15.7	<7.3	<4.0	<15.5	<4.0	<211	<8.1	<7.3
Replacement Chemicals (ng/L)											
Hexafluoropropylene oxide dimer acid [C6] (FRD-903, GenX)	HFPO-DA	30	300	<6.8	<1.9	<1.7	<6.7	<1.7	<91.3	<3.5	<1.9
4,8-dioxa-3H-perfluorononanoic acid [C7]	ADONA	600	3,000	<7.1	<1.5	<1.8	<7.1	<1.8	<95.9	<3.7	<1.5
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid [C8]	9Cl-PF3ONS	--	--	<6.4	<2.2	<1.6	<6.4	<1.6	<86.2	<3.3	<2.2
11-chloroicosafafluoro-3-oxaundecane-1-sulfonic acid [C10]	11Cl-PF3OUdS	--	--	<7.4	<2.5	<1.9	<7.3	<1.9	<99.0	<3.8	<2.5
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	--	--	<5.0	<1.6	<1.3	<4.9	<1.3	<66.8	<2.6	<1.6
Perfluoro-3-methoxypropanoic acid	PFMPA	--	--	51.7	50.5	1.6 J	<2.3	0.68 J	<31.7	4.1 J	4.8 J
Perfluoro-4-methoxybutanoic acid	PFMBA	--	--	62	71.8	<0.75	<2.9	<0.74	<39.5	3.0 J	2.5 J
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	--	--	12.3	13.3	<0.67	<2.6	<0.66	<35.3	2.9 J	<1.5

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NT = Parameter not analyzed

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< = Less than laboratory method detection limit (MDL)

BOLD = Sample result exceeds the ch. NR 140 ES

Italics = Sample result exceeds the ch. NR 140 PAL

Italics / **BOLD** = Sample result exceeds the ch. NR 140 PAL and the ch. NR 140 ES

J = Estimated concentration at or above limit of detection & limit of quantification

Green highlighted row are the compounds included in the charts in Section 4.0 of the Remedial Action Documentation Report

Table A.1.b

Groundwater Analytical Results – Fluoride

MW-3								
Sample ID	Preventative Action Limit (PAL)	Enforcement Standard (ES)	MW-3					
Date			4/22/2025	5/29/2025	6/5/2025	6/23/2025	8/18/2025	11/10/2025
Notes			Clear	Clear	Cloudy	Clear	--	Clear
Fluoride (mg/L)								
Fluoride	<i>0.8</i>	4.0	0.10	NT	0.12	0.12	0.12	0.15

NT = Parameter not analyzed

NA = Not Applicable

< = Less than laboratory method detection limit (MDL)

BOLD = Sample result exceeds the ch. NR 140 ES

Italics = Sample result exceeds the ch. NR 140 PAL

Italics / **BOLD** = Sample result exceeds the ch. NR 140 PAL and the ch. NR 140 ES

J = Estimated concentration at or above limit of detection & limit of quantification

MW-4								
Sample ID	Preventative Action Limit (PAL)	Enforcement Standard (ES)	MW-4					
Date			4/22/2025	5/29/2025	6/5/2025	6/23/2025	8/18/2025	11/10/2025
Notes			Clear	Clear	Clear	Cloudy	--	Clear
Fluoride (mg/L)								
Fluoride	0.8	4.0	0.090	NT	0.12	0.11	0.13	0.10

NT = Parameter not analyzed

NA = Not Applicable

< = Less than laboratory method detection limit (MDL)

BOLD = Sample result exceeds the ch. NR 140 ES

Italics = Sample result exceeds the ch. NR 140 PAL

Italics / **BOLD** = Sample result exceeds the ch. NR 140 PAL and the ch. NR 140 ES

J = Estimated concentration at or above limit of detection & limit of quantification

Sample ID	Preventative Action Limit (PAL)	Enforcement Standard (ES)	Duplicate (MW-4)					Duplicate (MW-4)
			4/22/2025	5/29/2025	6/5/2025	6/23/2025	8/18/2025	8/18/2025
Date			Clear	Clear	Clear	Cloudy	--	Grey
Notes								
Fluoride (mg/L)								
Fluoride	0.8	4.0	0.087	NT	0.11	0.11	0.12	0.12

NT = Parameter not analyzed

NA = Not Applicable

< = Less than laboratory method detection limit (MDL)

BOLD = Sample result exceeds the ch. NR 140 ES

Italics = Sample result exceeds the ch. NR 140 PAL

Italics / **BOLD** = Sample result exceeds the ch. NR 140 PAL and the ch. NR 140 ES

J = Estimated concentration at or above limit of detection & limit of quantification

Sample ID	Preventative Action Limit (PAL)	Enforcement Standard (ES)	MW-5					
			4/22/2025	5/29/2025	6/5/2025	6/23/2025	8/18/2025	11/10/2025
Date			Clear	Clear	Clear	Clear	--	Clear
Notes								
Fluoride (mg/L)								
Fluoride	<i>0.8</i>	4.0	0.13	NT	0.13	0.13	0.13	0.14

NT = Parameter not analyzed

NA = Not Applicable

< = Less than laboratory method detection limit (MDL)

BOLD = Sample result exceeds the ch. NR 140 ES

Italics = Sample result exceeds the ch. NR 140 PAL

Italics/**BOLD** = Sample result exceeds the ch. NR 140 PAL and the ch. NR 140 ES

J = Estimated concentration at or above limit of detection & limit of quantification

Sample ID	Preventative Action Limit (PAL)	Enforcement Standard (ES)	MW-6					
			4/22/2025	5/29/2025	6/5/2025	6/23/2025	8/18/2025	11/10/2025
			Date					
Notes			Clear	NA	Black, Purged	Clear	--	Grey
Fluoride (mg/L)								
Fluoride	0.8	4.0	0.12	NT	0.15	0.11	0.08	0.061J

NT = Parameter not analyzed

NA = Not Applicable

< = Less than laboratory method detection limit (MDL)

BOLD = Sample result exceeds the ch. NR 140 ES

Italics = Sample result exceeds the ch. NR 140 PAL

Italics /**BOLD** = Sample result exceeds the ch. NR 140 PAL and the ch. NR 140 ES

J = Estimated concentration at or above limit of detection & limit of quantification

APPENDIX A

PFAS SAMPLING INFORMATION

PFAS FIELD SAMPLING GUIDE

Per- and Polyfluoroalkyl Substances (PFAS) are found in a variety of sources, including equipment typically used to collect soil, groundwater, surface water, sediment, and drinking water samples. Due to this concern, as well as the need for very low reporting limits, special handling and care must be taken when collecting samples.

To avoid PFAS sample contamination, Pace Analytical[®] has developed this Guide of recommendations for collecting PFAS samples for testing and analysis.



BEST PRACTICES FOR PFAS SAMPLE COLLECTION

- Wash hands and use new nitrile gloves for each sample collected
- Groundwater, surface water, or drinking water samples should not be filtered as the glass fiber on the filter can potentially absorb PFAS
- Collect the PFAS sample first, prior to collecting samples for any other parameters into any other containers. This avoids contact with any other type of sample container, bottles or package materials
- Do not place the sample bottle cap on any surface when collecting the sample, and avoid all contact with the inside of the sample bottle or its cap
- When the labeled sample is collected, place the samples in an individual sealed plastic bag separate from all other sample parameter bottles
- Samples must be chilled during shipment and should arrive at the lab at $<6\text{ C } \pm 2$

FIELD QUALITY CONTROL

Field QC is important since many items typically taken to the field contain PFAS and laboratories report to single digit ppt or ng/L levels. The use of Field Reagent Blanks (FRB) (synonymous with Field Blanks) is written into EPA 537.1 and 533 as a means to verify that PFAS contamination of samples was not caused by the field sampling activity. FRBs include a container filled with PFAS-free water and an empty container. An FRB is collected by pouring the PFAS-free water into the empty container at the time a sample is collected in the field. The FRB is processed in the laboratory in the same manner as a field sample.

The use of PFAS-free rinsate water is recommended after cleaning any required sampling equipment (before and after sampling) for matrices such as soil. Collection of the rinsate water as an Equipment Blank (EB) and submittal to the laboratory for analysis is recommended to verify that sampling equipment did not cause contamination of samples.

Some states have issued sampling standard operating procedures that also stipulate the use of Trip Blanks (TBs) for PFAS projects.

FIELD SAMPLING GUIDE

MATRIX	CONTAINER	PRESERVATIVE	METHOD	NOTES
Drinking Water	2 x 250 ml HDPE or PP	Trizma	EPA Method 537 or EPA Method 537M	Trizma is a buffer and removes free chlorine.
Groundwater, surface water, waters	2 x 250 ml HDPE or PP	none	EPA Method 537M	
Effluent	2 x 250 ml HDPE or PP	Trizma	EPA Method 537M	Finished samples may require Trizma.
Soil, sediment, bio-solids	1 x 250 ml (or 4 ounce) HDPE or PP	none	EPA Method 537M	

Sample extraction = 14 days. Sample analysis = 28 days.

DO USE

DO NOT USE

Sample Container Items

- HDPE or Polypropylene (PP)
- Lined or unlined HDPE or polypropylene caps
- Glass or LDPE container
- Teflon™-lined cap

Field Equipment

- High density polyethylene (HDPE) or polypropylene materials
- Silicon tubing
- Loose paper (non-water resistant)
- Aluminum field clipboards or Masonite
- Sharpies, pens
- Regular Ice
- Teflon™ containing materials
- Teflon™ tubing
- Waterproof field books
- Plastic clipboards, binders, or spiral notebooks
- Post-It Notes
- Chemical (blue) ice packs

Field Clothing and Personal Protection Equipment

- Well-laundered clothing, defined as clothing that has been washed six or more times after purchase, made of synthetic or natural fibers. Cotton clothing preferred.
- No fabric softener
- Boots made with polyurethane and polyvinyl chloride (PVC)
- Sunscreen that is all natural and/or organic
- Insect repellents that is all natural and/or organic
- New clothing or water resistant, waterproof, or stain-treated clothing; no clothing containing Gore-Tex™
- Clothing laundered using fabric softener
- Tyvek®
- Boots containing Gore-Tex™
- Cosmetics, moisturizers, hand cream or related products as part of personal hygiene and/or showering routine the day of sampling

Field Equipment Decontamination Items

- Alconox® and/or Liquinox®
- Decon 90

Food Items

- Bottled water and hydration drinks (i.e. Gatorade® and Powerade®) to be brought and consumed only in the staging area
- Food and drink other than the exceptions listed at left.

Field Sampling Guidance & SOPs

Click here for a list of state and other organization issued SOPs.

APPENDIX B

LABORATORY ANALYTICAL REPORTS



December 08, 2025

Jacob Mirfield
ORIN Technologies
405 Investment Court
Verona, WI 53593

RE: Project: Darwin Burn Pit
Pace Project No.: 40304830

Dear Jacob Mirfield:

Enclosed are the analytical results for sample(s) received by the laboratory on November 11, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc:



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
 Alaska Contaminated Sites Certification #: 17-009
 Arizona Certification #: AZ0014
 Arkansas WW Certification #: 88-0680
 Colorado Certification #: MN00064
 DoD Certification via A2LA #: 2926.01
 Florida Certification #: E87605
 Idaho Certification #: MN00064
 Indiana Certification #: C-MN-01
 ISO/IEC 17025 Certification via A2LA #: 2926.01
 Kentucky DW Certification #: 90062
 Louisiana DEQ Certification #: AI-03086
 Maine Certification #: MN00064
 Michigan Certification #: 9909
 Minnesota Dept of Ag Approval: via MN 027-053-137
 Mississippi Certification #: MN00064
 Montana Certification #: CERT0092
 Nevada Certification #: MN00064
 New Jersey Certification #: MN002
 North Carolina DW Certification #: 27700
 North Dakota Certification via A2LA #: R-036
 Ohio DW Certification #: 41244
 Oklahoma Certification #: 9507
 Oregon Secondary Certification #: MN200001
 Puerto Rico Certification #: MN00064
 Tennessee Certification #: TN02818
 Utah Certification #: MN00064
 Virginia Certification #: 460163
 West Virginia DEP Certification #: 382
 Wisconsin Certification #: 999407970
 USDA Permit #: P330-19-00208

Alabama Certification #: 40770
 Alaska DW Certification #: MN00064
 Arkansas DW Certification #: MN00064
 California Certification #: 2929
 Connecticut Certification #: PH-0256
 EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
 Georgia Certification #: 959
 Illinois Certification #: 200011
 Iowa Certification #: 368
 Kansas Certification #: E-10167
 Kentucky WW Certification #: 90062
 Louisiana DW Certification #: MN00064
 Maryland Certification #: 322
 Minnesota Certification #: 027-053-137
 Minnesota Petrofund Registration #: 1240
 Missouri Certification #: 10100
 Nebraska Certification #: NE-OS-18-06
 New Hampshire Certification #: 2081
 New York Certification #: 11647
 North Carolina WW Certification #: 530
 North Dakota Certification via MN #: R-036
 Ohio VAP Certification (1700) #: CL101
 Oregon Primary Certification #: MN300001
 Pennsylvania Certification #: 68-00563
 South Carolina Certification #:74003001
 Texas Certification #: T104704192
 Vermont Certification #: VT-027053137
 Washington Certification #: C486
 West Virginia DW Certification #: 9952 C
 Wyoming UST Certification via A2LA #: 2926.01

Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302
 Illinois EPA Certification # 200050
 Kentucky UST DEP Certification # 123059
 Minnesota DOH Certification # 055-999-334
 North Dakota DEQ Certification # R-150
 South Carolina DES Certification # 83006001
 USDA APHIS Foreign Soil Permit # 525-24-3-36355
 Virginia VELAP Certification # 460263
 Wisconsin DNR Certification # 405132750

Florida DOH Certification # E87948
 ISO/IEC 17025 (A2LA) Certification # 6154.01
 Louisiana DEQ Certification # 04168
 New York DOH Certification # 12064
 ISO/IEC 17025 (A2LA) Certification # 6154.01
 Texas TCEQ Certification # T104704529
 U.S. Fish & Wildlife Service Permit # 51774A
 Wisconsin DATCP Certification # 444

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SAMPLE SUMMARY

Project: Darwin Burn Pit
Pace Project No.: 40304830

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40304830001	MW-1	Water	11/10/25 09:06	11/11/25 09:40
40304830002	MW-2	Water	11/10/25 13:21	11/11/25 09:40
40304830003	MW-3	Water	11/10/25 14:07	11/11/25 09:40
40304830004	MW-4	Water	11/10/25 09:57	11/11/25 09:40
40304830005	MW-5	Water	11/10/25 08:36	11/11/25 09:40
40304830006	MW-6	Water	11/10/25 12:09	11/11/25 09:40
40304830007	MW-7	Water	11/10/25 15:01	11/11/25 09:40
40304830008	DUPLICATE MW-6	Water	11/10/25 12:15	11/11/25 09:40
40304830009	TRIP BLANK	Water	11/10/25 12:04	11/11/25 09:40
40304830010	EQUIPMENT BLANK	Water	11/10/25 11:06	11/11/25 09:40
40304830011	FIELD BLANK	Water	11/10/25 10:38	11/11/25 09:40
40304830012	PZ-1	Water	11/10/25 10:50	11/11/25 09:40

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SAMPLE ANALYTE COUNT

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40304830001	MW-1	EPA 1633A	MJL	65	PASI-M
40304830002	MW-2	EPA 1633A	MJL	65	PASI-M
40304830003	MW-3	EPA 1633A	MJL	65	PASI-M
40304830004	MW-4	SM 4500F/C	AJS1	1	PASI-G
		EPA 1633A	MJL	65	PASI-M
40304830005	MW-5	SM 4500F/C	AJS1	1	PASI-G
		EPA 1633A	MJL	65	PASI-M
40304830006	MW-6	SM 4500F/C	AJS1	1	PASI-G
		EPA 1633A	MJL	65	PASI-M
40304830007	MW-7	EPA 1633A	MJL	65	PASI-M
40304830008	DUPLICATE MW-6	EPA 1633A	MJL	65	PASI-M
		SM 4500F/C	AJS1	1	PASI-G
40304830009	TRIP BLANK	EPA 1633A	MJL	65	PASI-M
40304830010	EQUIPMENT BLANK	EPA 1633A	MJL	65	PASI-M
40304830011	FIELD BLANK	EPA 1633A	MJL	65	PASI-M
40304830012	PZ-1	EPA 1633A	MJL	65	PASI-M

PASI-G = Pace Analytical Services - Green Bay

PASI-M = Pace Analytical Services - Minneapolis

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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: MW-1	Lab ID: 40304830001			Collected: 11/10/25 09:06	Received: 11/11/25 09:40	Matrix: Water			
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633A Water									
Analytical Method: EPA 1633A Preparation Method: EPA 1633A Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.3	ng/L	6.5	1.3	1	11/21/25 13:36	11/24/25 11:48	763051-92-9	
3:3 FTCA	<2.1	ng/L	8.2	2.1	1	11/21/25 13:36	11/24/25 11:48	356-02-5	
4:2 FTS	<1.5	ng/L	6.5	1.5	1	11/21/25 13:36	11/24/25 11:48	757124-72-4	
5:3 FTCA	<5.5	ng/L	40.9	5.5	1	11/21/25 13:36	11/24/25 11:48	914637-49-3	
6:2 FTS	<1.5	ng/L	6.5	1.5	1	11/21/25 13:36	11/24/25 11:48	27619-97-2	
7:3 FTCA	<5.3	ng/L	40.9	5.3	1	11/21/25 13:36	11/24/25 11:48	812-70-4	
8:2 FTS	<2.5	ng/L	6.5	2.5	1	11/21/25 13:36	11/24/25 11:48	39108-34-4	
9CI-PF3ONS	<1.2	ng/L	6.5	1.2	1	11/21/25 13:36	11/24/25 11:48	756426-58-1	
ADONA	<0.80	ng/L	6.5	0.80	1	11/21/25 13:36	11/24/25 11:48	919005-14-4	
HFPO-DA	<0.98	ng/L	6.5	0.98	1	11/21/25 13:36	11/24/25 11:48	13252-13-6	
NEtFOSAA	<0.44	ng/L	1.6	0.44	1	11/21/25 13:36	11/24/25 11:48	2991-50-6	
NEtFOSA	<0.32	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 11:48	4151-50-2	
NEtFOSE	<3.9	ng/L	16.4	3.9	1	11/21/25 13:36	11/24/25 11:48	1691-99-2	
NFDHA	<0.83	ng/L	3.3	0.83	1	11/21/25 13:36	11/24/25 11:48	151772-58-6	
NMeFOSAA	<0.49	ng/L	1.6	0.49	1	11/21/25 13:36	11/24/25 11:48	2355-31-9	
NMeFOSA	<0.54	ng/L	1.6	0.54	1	11/21/25 13:36	11/24/25 11:48	31506-32-8	
NMeFOSE	<2.9	ng/L	16.4	2.9	1	11/21/25 13:36	11/24/25 11:48	24448-09-7	
PFBS	6.2	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 11:48	375-73-5	
PFDA	<0.37	ng/L	1.6	0.37	1	11/21/25 13:36	11/24/25 11:48	335-76-2	
PFHxA	22.2	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 11:48	307-24-4	
PFBA	12.5	ng/L	6.5	1.3	1	11/21/25 13:36	11/24/25 11:48	375-22-4	
PFDS	<0.48	ng/L	1.6	0.48	1	11/21/25 13:36	11/24/25 11:48	335-77-3	
PFDoS	<0.35	ng/L	1.6	0.35	1	11/21/25 13:36	11/24/25 11:48	79780-39-5	
PFEESA	<0.82	ng/L	3.3	0.82	1	11/21/25 13:36	11/24/25 11:48	113507-82-7	
PFHpS	2.3	ng/L	1.6	0.43	1	11/21/25 13:36	11/24/25 11:48	375-92-8	
PFMBA	<0.48	ng/L	3.3	0.48	1	11/21/25 13:36	11/24/25 11:48	863090-89-5	
PFMPA	<0.61	ng/L	3.3	0.61	1	11/21/25 13:36	11/24/25 11:48	377-73-1	
PFNS	<0.46	ng/L	1.6	0.46	1	11/21/25 13:36	11/24/25 11:48	68259-12-1	
PFOSA	<0.32	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 11:48	754-91-6	
PFPeA	11.6	ng/L	3.3	0.46	1	11/21/25 13:36	11/24/25 11:48	2706-90-3	
PFPeS	3.0	ng/L	1.6	0.27	1	11/21/25 13:36	11/24/25 11:48	2706-91-4	
PFDoA	<0.34	ng/L	1.6	0.34	1	11/21/25 13:36	11/24/25 11:48	307-55-1	
PFHpA	13.3	ng/L	1.6	0.36	1	11/21/25 13:36	11/24/25 11:48	375-85-9	
PFHxS	293	ng/L	1.6	0.44	1	11/21/25 13:36	11/24/25 11:48	355-46-4	
PFNA	0.41J	ng/L	1.6	0.33	1	11/21/25 13:36	11/24/25 11:48	375-95-1	
PFOS	17.8	ng/L	1.6	0.54	1	11/21/25 13:36	11/24/25 11:48	1763-23-1	I
PFOA	233	ng/L	1.6	0.47	1	11/21/25 13:36	11/24/25 11:48	335-67-1	
PFTeDA	<0.27	ng/L	1.6	0.27	1	11/21/25 13:36	11/24/25 11:48	376-06-7	
PFTTrDA	<0.33	ng/L	1.6	0.33	1	11/21/25 13:36	11/24/25 11:48	72629-94-8	
PFUnA	<0.36	ng/L	1.6	0.36	1	11/21/25 13:36	11/24/25 11:48	2058-94-8	
Surrogates									
13C2-PFDoA (S)	91	%	10-130		1	11/21/25 13:36	11/24/25 11:48		
13C3HFPO-DA (S)	106	%	40-130		1	11/21/25 13:36	11/24/25 11:48		
13C3-PFBS (S)	106	%	40-135		1	11/21/25 13:36	11/24/25 11:48		

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: MW-1		Lab ID: 40304830001			Collected: 11/10/25 09:06	Received: 11/11/25 09:40	Matrix: Water		
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	97	%.	40-130		1	11/21/25 13:36	11/24/25 11:48		
13C4-PFBA (S)	99	%.	5-130		1	11/21/25 13:36	11/24/25 11:48		
13C4-PFHpA (S)	99	%.	40-130		1	11/21/25 13:36	11/24/25 11:48		
13C5-PFHxA (S)	100	%.	40-130		1	11/21/25 13:36	11/24/25 11:48		
13C5-PFPeA (S)	104	%.	40-130		1	11/21/25 13:36	11/24/25 11:48		
13C6-PFDA (S)	99	%.	40-130		1	11/21/25 13:36	11/24/25 11:48		
13C8-PFOA (S)	103	%.	40-130		1	11/21/25 13:36	11/24/25 11:48		
13C8-PFOS (S)	92	%.	40-130		1	11/21/25 13:36	11/24/25 11:48		
13C8-PFOSA (S)	78	%.	40-130		1	11/21/25 13:36	11/24/25 11:48		
13C9-PFNA (S)	97	%.	40-130		1	11/21/25 13:36	11/24/25 11:48		
d3-MeFOSAA (S)	72	%.	40-170		1	11/21/25 13:36	11/24/25 11:48		
d3-NMeFOSA (S)	72	%.	10-130		1	11/21/25 13:36	11/24/25 11:48		
d5-EtFOSAA (S)	69	%.	25-135		1	11/21/25 13:36	11/24/25 11:48		
d5-NEtFOSA (S)	86	%.	10-130		1	11/21/25 13:36	11/24/25 11:48		
d7-NMeFOSE (S)	59	%.	10-130		1	11/21/25 13:36	11/24/25 11:48		ES7
d9-NEtFOSE (S)	82	%.	10-130		1	11/21/25 13:36	11/24/25 11:48		
13C2-PFTA (S)	77	%.	10-130		1	11/21/25 13:36	11/24/25 11:48		
13C7-PFUdA (S)	101	%.	30-130		1	11/21/25 13:36	11/24/25 11:48		
13C24:2FTS (S)	109	%.	40-200		1	11/21/25 13:36	11/24/25 11:48		
13C26:2FTS (S)	110	%.	40-200		1	11/21/25 13:36	11/24/25 11:48		
13C28:2FTS (S)	108	%.	40-300		1	11/21/25 13:36	11/24/25 11:48		
13C3-PFPPrA (S)	65	%.	5-130		1	11/21/25 13:36	11/24/25 11:48		

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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: MW-2	Lab ID: 40304830002					Collected: 11/10/25 13:21	Received: 11/11/25 09:40	Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633A Water									
Analytical Method: EPA 1633A Preparation Method: EPA 1633A Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.3	ng/L	6.5	1.3	1	11/21/25 13:36	11/24/25 11:58	763051-92-9	
3:3 FTCA	<2.1	ng/L	8.2	2.1	1	11/21/25 13:36	11/24/25 11:58	356-02-5	
4:2 FTS	<1.5	ng/L	6.5	1.5	1	11/21/25 13:36	11/24/25 11:58	757124-72-4	
5:3 FTCA	<5.5	ng/L	40.9	5.5	1	11/21/25 13:36	11/24/25 11:58	914637-49-3	
6:2 FTS	19.1	ng/L	6.5	1.5	1	11/21/25 13:36	11/24/25 11:58	27619-97-2	
7:3 FTCA	<5.3	ng/L	40.9	5.3	1	11/21/25 13:36	11/24/25 11:58	812-70-4	
8:2 FTS	54.9	ng/L	6.5	2.5	1	11/21/25 13:36	11/24/25 11:58	39108-34-4	
9CI-PF3ONS	<1.2	ng/L	6.5	1.2	1	11/21/25 13:36	11/24/25 11:58	756426-58-1	
ADONA	<0.79	ng/L	6.5	0.79	1	11/21/25 13:36	11/24/25 11:58	919005-14-4	
HFPO-DA	<0.98	ng/L	6.5	0.98	1	11/21/25 13:36	11/24/25 11:58	13252-13-6	
NEtFOSAA	<0.44	ng/L	1.6	0.44	1	11/21/25 13:36	11/24/25 11:58	2991-50-6	
NEtFOSA	<0.32	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 11:58	4151-50-2	
NEtFOSE	<3.9	ng/L	16.4	3.9	1	11/21/25 13:36	11/24/25 11:58	1691-99-2	
NFDHA	<0.83	ng/L	3.3	0.83	1	11/21/25 13:36	11/24/25 11:58	151772-58-6	
NMeFOSAA	<0.49	ng/L	1.6	0.49	1	11/21/25 13:36	11/24/25 11:58	2355-31-9	
NMeFOSA	<0.54	ng/L	1.6	0.54	1	11/21/25 13:36	11/24/25 11:58	31506-32-8	
NMeFOSE	<2.9	ng/L	16.4	2.9	1	11/21/25 13:36	11/24/25 11:58	24448-09-7	
PFBS	280	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 11:58	375-73-5	
PFDA	1.9	ng/L	1.6	0.37	1	11/21/25 13:36	11/24/25 11:58	335-76-2	
PFHxA	468	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 11:58	307-24-4	
PFBA	134	ng/L	6.5	1.3	1	11/21/25 13:36	11/24/25 11:58	375-22-4	
PFDS	<0.48	ng/L	1.6	0.48	1	11/21/25 13:36	11/24/25 11:58	335-77-3	
PFDoS	<0.35	ng/L	1.6	0.35	1	11/21/25 13:36	11/24/25 11:58	79780-39-5	
PFEESA	<0.82	ng/L	3.3	0.82	1	11/21/25 13:36	11/24/25 11:58	113507-82-7	
PFHpS	31.6	ng/L	1.6	0.43	1	11/21/25 13:36	11/24/25 11:58	375-92-8	
PFMBA	<0.48	ng/L	3.3	0.48	1	11/21/25 13:36	11/24/25 11:58	863090-89-5	
PFMPA	<0.61	ng/L	3.3	0.61	1	11/21/25 13:36	11/24/25 11:58	377-73-1	
PFNS	<0.46	ng/L	1.6	0.46	1	11/21/25 13:36	11/24/25 11:58	68259-12-1	
PFOSA	6.9	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 11:58	754-91-6	
PFPeA	255	ng/L	3.3	0.46	1	11/21/25 13:36	11/24/25 11:58	2706-90-3	
PFPeS	388	ng/L	1.6	0.26	1	11/21/25 13:36	11/24/25 11:58	2706-91-4	
PFDoA	<0.34	ng/L	1.6	0.34	1	11/21/25 13:36	11/24/25 11:58	307-55-1	
PFHpA	160	ng/L	1.6	0.36	1	11/21/25 13:36	11/24/25 11:58	375-85-9	
PFHxS	7800	ng/L	164	43.6	100	11/21/25 13:36	11/25/25 21:12	355-46-4	
PFNA	36.6	ng/L	1.6	0.33	1	11/21/25 13:36	11/24/25 11:58	375-95-1	
PFOS	1150	ng/L	16.4	5.4	10	11/21/25 13:36	11/25/25 21:02	1763-23-1	
PFOA	2920	ng/L	16.4	4.7	10	11/21/25 13:36	11/25/25 21:02	335-67-1	
PFTeDA	<0.27	ng/L	1.6	0.27	1	11/21/25 13:36	11/24/25 11:58	376-06-7	
PFTTrDA	<0.33	ng/L	1.6	0.33	1	11/21/25 13:36	11/24/25 11:58	72629-94-8	
PFUnA	<0.35	ng/L	1.6	0.35	1	11/21/25 13:36	11/24/25 11:58	2058-94-8	
Surrogates									
13C2-PFDoA (S)	87	%	10-130		1	11/21/25 13:36	11/24/25 11:58		
13C3HFPO-DA (S)	100	%	40-130		1	11/21/25 13:36	11/24/25 11:58		
13C3-PFBS (S)	181	%	40-135		1	11/21/25 13:36	11/24/25 11:58		ES0

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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: MW-2 Lab ID: 40304830002 Collected: 11/10/25 13:21 Received: 11/11/25 09:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	90	%.	40-130		1	11/21/25 13:36	11/24/25 11:58		
13C4-PFBA (S)	97	%.	5-130		1	11/21/25 13:36	11/24/25 11:58		
13C4-PFHpA (S)	90	%.	40-130		1	11/21/25 13:36	11/24/25 11:58		
13C5-PFHxA (S)	93	%.	40-130		1	11/21/25 13:36	11/24/25 11:58		
13C5-PFPeA (S)	99	%.	40-130		1	11/21/25 13:36	11/24/25 11:58		
13C6-PFDA (S)	91	%.	40-130		1	11/21/25 13:36	11/24/25 11:58		
13C8-PFOA (S)	96	%.	40-130		1	11/21/25 13:36	11/24/25 11:58		
13C8-PFOS (S)	88	%.	40-130		1	11/21/25 13:36	11/24/25 11:58		
13C8-PFOSA (S)	84	%.	40-130		1	11/21/25 13:36	11/24/25 11:58		
13C9-PFNA (S)	93	%.	40-130		1	11/21/25 13:36	11/24/25 11:58		
d3-MeFOSAA (S)	75	%.	40-170		1	11/21/25 13:36	11/24/25 11:58		
d3-NMeFOSA (S)	74	%.	10-130		1	11/21/25 13:36	11/24/25 11:58		
d5-EtFOSAA (S)	74	%.	25-135		1	11/21/25 13:36	11/24/25 11:58		
d5-NEtFOSA (S)	89	%.	10-130		1	11/21/25 13:36	11/24/25 11:58		
d7-NMeFOSE (S)	62	%.	10-130		1	11/21/25 13:36	11/24/25 11:58		
d9-NEtFOSE (S)	87	%.	10-130		1	11/21/25 13:36	11/24/25 11:58		
13C2-PFTA (S)	71	%.	10-130		1	11/21/25 13:36	11/24/25 11:58		
13C7-PFUdA (S)	95	%.	30-130		1	11/21/25 13:36	11/24/25 11:58		
13C24:2FTS (S)	218	%.	40-200		1	11/21/25 13:36	11/24/25 11:58		ES0
13C26:2FTS (S)	167	%.	40-200		1	11/21/25 13:36	11/24/25 11:58		
13C28:2FTS (S)	196	%.	40-300		1	11/21/25 13:36	11/24/25 11:58		
13C3-PFPPrA (S)	32	%.	5-130		1	11/21/25 13:36	11/24/25 11:58		

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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: MW-3	Lab ID: 40304830003	Collected: 11/10/25 14:07	Received: 11/11/25 09:40	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633A Water									
Analytical Method: EPA 1633A Preparation Method: EPA 1633A									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<3.1	ng/L	15.3	3.1	1	11/21/25 13:36	11/24/25 12:08	763051-92-9	
3:3 FTCA	<4.9	ng/L	19.1	4.9	1	11/21/25 13:36	11/24/25 12:08	356-02-5	
4:2 FTS	<3.6	ng/L	15.3	3.6	1	11/21/25 13:36	11/24/25 12:08	757124-72-4	
5:3 FTCA	<12.9	ng/L	95.4	12.9	1	11/21/25 13:36	11/24/25 12:08	914637-49-3	
6:2 FTS	37.3	ng/L	15.3	3.6	1	11/21/25 13:36	11/24/25 12:08	27619-97-2	
7:3 FTCA	<12.4	ng/L	95.4	12.4	1	11/21/25 13:36	11/24/25 12:08	812-70-4	
8:2 FTS	<5.8	ng/L	15.3	5.8	1	11/21/25 13:36	11/24/25 12:08	39108-34-4	
9CI-PF3ONS	<2.8	ng/L	15.3	2.8	1	11/21/25 13:36	11/24/25 12:08	756426-58-1	
ADONA	<1.9	ng/L	15.3	1.9	1	11/21/25 13:36	11/24/25 12:08	919005-14-4	
HFPO-DA	<2.3	ng/L	15.3	2.3	1	11/21/25 13:36	11/24/25 12:08	13252-13-6	
NEtFOSAA	<1.0	ng/L	3.8	1.0	1	11/21/25 13:36	11/24/25 12:08	2991-50-6	
NEtFOSA	<0.75	ng/L	3.8	0.75	1	11/21/25 13:36	11/24/25 12:08	4151-50-2	
NEtFOSE	<9.0	ng/L	38.2	9.0	1	11/21/25 13:36	11/24/25 12:08	1691-99-2	
NFDHA	<1.9	ng/L	7.6	1.9	1	11/21/25 13:36	11/24/25 12:08	151772-58-6	
NMeFOSAA	<1.1	ng/L	3.8	1.1	1	11/21/25 13:36	11/24/25 12:08	2355-31-9	
NMeFOSA	<1.3	ng/L	3.8	1.3	1	11/21/25 13:36	11/24/25 12:08	31506-32-8	
NMeFOSE	<6.9	ng/L	38.2	6.9	1	11/21/25 13:36	11/24/25 12:08	24448-09-7	
PFBS	2200	ng/L	38.2	7.2	10	11/21/25 13:36	11/25/25 21:22	375-73-5	M1
PFDA	1.2J	ng/L	3.8	0.86	1	11/21/25 13:36	11/24/25 12:08	335-76-2	
PFHxA	6420	ng/L	38.2	7.4	10	11/21/25 13:36	11/25/25 21:22	307-24-4	M1,R1
PFBA	1780	ng/L	15.3	3.0	1	11/21/25 13:36	11/24/25 12:08	375-22-4	M1
PFDS	<1.1	ng/L	3.8	1.1	1	11/21/25 13:36	11/24/25 12:08	335-77-3	
PFDoS	<0.81	ng/L	3.8	0.81	1	11/21/25 13:36	11/24/25 12:08	79780-39-5	
PFEESA	<1.9	ng/L	7.6	1.9	1	11/21/25 13:36	11/24/25 12:08	113507-82-7	
PFHpS	35.8	ng/L	3.8	0.99	1	11/21/25 13:36	11/24/25 12:08	375-92-8	
PFMBA	1.3J	ng/L	7.6	1.1	1	11/21/25 13:36	11/24/25 12:08	863090-89-5	
PFMPA	2.6J	ng/L	7.6	1.4	1	11/21/25 13:36	11/24/25 12:08	377-73-1	
PFNS	<1.1	ng/L	3.8	1.1	1	11/21/25 13:36	11/24/25 12:08	68259-12-1	
PFOSA	1.1J	ng/L	3.8	0.74	1	11/21/25 13:36	11/24/25 12:08	754-91-6	
PFPeA	6140	ng/L	76.3	10.6	10	11/21/25 13:36	11/25/25 21:22	2706-90-3	M1
PFPeS	2480	ng/L	38.2	6.2	10	11/21/25 13:36	11/25/25 21:22	2706-91-4	M1,R1
PFDoA	<0.80	ng/L	3.8	0.80	1	11/21/25 13:36	11/24/25 12:08	307-55-1	
PFHpA	2350	ng/L	38.2	8.5	10	11/21/25 13:36	11/25/25 21:22	375-85-9	M1
PFHxS	38600	ng/L	382	102	100	11/21/25 13:36	11/25/25 21:32	355-46-4	M1,R1
PFNA	114	ng/L	3.8	0.76	1	11/21/25 13:36	11/24/25 12:08	375-95-1	
PFOS	320	ng/L	3.8	1.3	1	11/21/25 13:36	11/24/25 12:08	1763-23-1	
PFOA	13200	ng/L	38.2	10.9	10	11/21/25 13:36	11/25/25 21:22	335-67-1	M1
PFTeDA	<0.64	ng/L	3.8	0.64	1	11/21/25 13:36	11/24/25 12:08	376-06-7	
PFTTrDA	<0.76	ng/L	3.8	0.76	1	11/21/25 13:36	11/24/25 12:08	72629-94-8	
PFUnA	<0.83	ng/L	3.8	0.83	1	11/21/25 13:36	11/24/25 12:08	2058-94-8	
Surrogates									
13C2-PFDoA (S)	77	%	10-130		1	11/21/25 13:36	11/24/25 12:08		
13C3HFPO-DA (S)	106	%	40-130		1	11/21/25 13:36	11/24/25 12:08		
13C3-PFBS (S)	210	%	40-135		1	11/21/25 13:36	11/24/25 12:08		ES0

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: MW-3	Lab ID: 40304830003			Collected: 11/10/25 14:07	Received: 11/11/25 09:40	Matrix: Water			
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	77	%.	40-130		1	11/21/25 13:36	11/24/25 12:08		
13C4-PFBA (S)	95	%.	5-130		1	11/21/25 13:36	11/24/25 12:08		
13C4-PFHpA (S)	86	%.	40-130		1	11/21/25 13:36	11/24/25 12:08		
13C5-PFHxA (S)	91	%.	40-130		1	11/21/25 13:36	11/24/25 12:08		
13C5-PFPeA (S)	92	%.	40-130		1	11/21/25 13:36	11/24/25 12:08		
13C6-PFDA (S)	88	%.	40-130		1	11/21/25 13:36	11/24/25 12:08		
13C8-PFOA (S)	111	%.	40-130		1	11/21/25 13:36	11/24/25 12:08		
13C8-PFOS (S)	91	%.	40-130		1	11/21/25 13:36	11/24/25 12:08		
13C8-PFOSA (S)	72	%.	40-130		1	11/21/25 13:36	11/24/25 12:08		
13C9-PFNA (S)	93	%.	40-130		1	11/21/25 13:36	11/24/25 12:08		
d3-MeFOSAA (S)	69	%.	40-170		1	11/21/25 13:36	11/24/25 12:08		
d3-NMeFOSA (S)	71	%.	10-130		1	11/21/25 13:36	11/24/25 12:08		
d5-EtFOSAA (S)	64	%.	25-135		1	11/21/25 13:36	11/24/25 12:08		
d5-NEtFOSA (S)	81	%.	10-130		1	11/21/25 13:36	11/24/25 12:08		
d7-NMeFOSE (S)	52	%.	10-130		1	11/21/25 13:36	11/24/25 12:08		
d9-NEtFOSE (S)	72	%.	10-130		1	11/21/25 13:36	11/24/25 12:08		
13C2-PFTA (S)	69	%.	10-130		1	11/21/25 13:36	11/24/25 12:08		
13C7-PFUdA (S)	88	%.	30-130		1	11/21/25 13:36	11/24/25 12:08		
13C24:2FTS (S)	294	%.	40-200		1	11/21/25 13:36	11/24/25 12:08		ES0
13C26:2FTS (S)	198	%.	40-200		1	11/21/25 13:36	11/24/25 12:08		
13C28:2FTS (S)	243	%.	40-300		1	11/21/25 13:36	11/24/25 12:08		
13C3-PFPPrA (S)	33	%.	5-130		1	11/21/25 13:36	11/24/25 12:08		

4500FC Fluoride

Analytical Method: SM 4500F/C
 Pace Analytical Services - Green Bay

Fluoride	0.15	mg/L	0.10	0.019	1		12/05/25 10:30	16984-48-8	
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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: MW-4	Lab ID: 40304830004	Collected: 11/10/25 09:57	Received: 11/11/25 09:40	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633A Water									
Analytical Method: EPA 1633A Preparation Method: EPA 1633A									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.3	ng/L	6.3	1.3	1	11/21/25 13:36	11/24/25 12:39	763051-92-9	
3:3 FTCA	<2.0	ng/L	7.9	2.0	1	11/21/25 13:36	11/24/25 12:39	356-02-5	
4:2 FTS	<1.5	ng/L	6.3	1.5	1	11/21/25 13:36	11/24/25 12:39	757124-72-4	
5:3 FTCA	<5.3	ng/L	39.4	5.3	1	11/21/25 13:36	11/24/25 12:39	914637-49-3	
6:2 FTS	<1.5	ng/L	6.3	1.5	1	11/21/25 13:36	11/24/25 12:39	27619-97-2	
7:3 FTCA	<5.1	ng/L	39.4	5.1	1	11/21/25 13:36	11/24/25 12:39	812-70-4	
8:2 FTS	<2.4	ng/L	6.3	2.4	1	11/21/25 13:36	11/24/25 12:39	39108-34-4	
9CI-PF3ONS	<1.1	ng/L	6.3	1.1	1	11/21/25 13:36	11/24/25 12:39	756426-58-1	
ADONA	<0.77	ng/L	6.3	0.77	1	11/21/25 13:36	11/24/25 12:39	919005-14-4	
HFPO-DA	<0.95	ng/L	6.3	0.95	1	11/21/25 13:36	11/24/25 12:39	13252-13-6	
NEtFOSAA	<0.42	ng/L	1.6	0.42	1	11/21/25 13:36	11/24/25 12:39	2991-50-6	
NEtFOSA	<0.31	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 12:39	4151-50-2	
NEtFOSE	<3.7	ng/L	15.8	3.7	1	11/21/25 13:36	11/24/25 12:39	1691-99-2	
NFDHA	<0.80	ng/L	3.2	0.80	1	11/21/25 13:36	11/24/25 12:39	151772-58-6	
NMeFOSAA	<0.47	ng/L	1.6	0.47	1	11/21/25 13:36	11/24/25 12:39	2355-31-9	
NMeFOSA	<0.52	ng/L	1.6	0.52	1	11/21/25 13:36	11/24/25 12:39	31506-32-8	
NMeFOSE	<2.8	ng/L	15.8	2.8	1	11/21/25 13:36	11/24/25 12:39	24448-09-7	
PFBS	<0.30	ng/L	1.6	0.30	1	11/21/25 13:36	11/24/25 12:39	375-73-5	
PFDA	<0.35	ng/L	1.6	0.35	1	11/21/25 13:36	11/24/25 12:39	335-76-2	
PFHxA	0.98J	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 12:39	307-24-4	
PFBA	15.5	ng/L	6.3	1.3	1	11/21/25 13:36	11/24/25 12:39	375-22-4	
PFDS	<0.46	ng/L	1.6	0.46	1	11/21/25 13:36	11/24/25 12:39	335-77-3	
PFDoS	<0.33	ng/L	1.6	0.33	1	11/21/25 13:36	11/24/25 12:39	79780-39-5	
PFEESA	<0.79	ng/L	3.2	0.79	1	11/21/25 13:36	11/24/25 12:39	113507-82-7	
PFHpS	<0.41	ng/L	1.6	0.41	1	11/21/25 13:36	11/24/25 12:39	375-92-8	
PFMBA	<0.46	ng/L	3.2	0.46	1	11/21/25 13:36	11/24/25 12:39	863090-89-5	
PFMPA	<0.59	ng/L	3.2	0.59	1	11/21/25 13:36	11/24/25 12:39	377-73-1	
PFNS	<0.44	ng/L	1.6	0.44	1	11/21/25 13:36	11/24/25 12:39	68259-12-1	
PFOSA	<0.31	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 12:39	754-91-6	
PFPeA	1.4J	ng/L	3.2	0.44	1	11/21/25 13:36	11/24/25 12:39	2706-90-3	
PFPeS	<0.26	ng/L	1.6	0.26	1	11/21/25 13:36	11/24/25 12:39	2706-91-4	
PFDoA	<0.33	ng/L	1.6	0.33	1	11/21/25 13:36	11/24/25 12:39	307-55-1	
PFHpA	<0.35	ng/L	1.6	0.35	1	11/21/25 13:36	11/24/25 12:39	375-85-9	
PFHxS	5.0	ng/L	1.6	0.42	1	11/21/25 13:36	11/24/25 12:39	355-46-4	
PFNA	<0.31	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 12:39	375-95-1	
PFOS	3.1	ng/L	1.6	0.52	1	11/21/25 13:36	11/24/25 12:39	1763-23-1	
PFOA	2.7	ng/L	1.6	0.45	1	11/21/25 13:36	11/24/25 12:39	335-67-1	
PFTeDA	<0.26	ng/L	1.6	0.26	1	11/21/25 13:36	11/24/25 12:39	376-06-7	
PFTTrDA	<0.32	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 12:39	72629-94-8	
PFUnA	<0.34	ng/L	1.6	0.34	1	11/21/25 13:36	11/24/25 12:39	2058-94-8	
Surrogates									
13C2-PFDoA (S)	77	%	10-130		1	11/21/25 13:36	11/24/25 12:39		
13C3HFPO-DA (S)	103	%	40-130		1	11/21/25 13:36	11/24/25 12:39		
13C3-PFBS (S)	103	%	40-135		1	11/21/25 13:36	11/24/25 12:39		

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: MW-4		Lab ID: 40304830004			Collected: 11/10/25 09:57	Received: 11/11/25 09:40	Matrix: Water		
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	95	%.	40-130		1	11/21/25 13:36	11/24/25 12:39		
13C4-PFBA (S)	99	%.	5-130		1	11/21/25 13:36	11/24/25 12:39		
13C4-PFHpA (S)	95	%.	40-130		1	11/21/25 13:36	11/24/25 12:39		
13C5-PFHxA (S)	100	%.	40-130		1	11/21/25 13:36	11/24/25 12:39		
13C5-PFPeA (S)	100	%.	40-130		1	11/21/25 13:36	11/24/25 12:39		
13C6-PFDA (S)	99	%.	40-130		1	11/21/25 13:36	11/24/25 12:39		
13C8-PFOA (S)	103	%.	40-130		1	11/21/25 13:36	11/24/25 12:39		
13C8-PFOS (S)	94	%.	40-130		1	11/21/25 13:36	11/24/25 12:39		
13C8-PFOSA (S)	77	%.	40-130		1	11/21/25 13:36	11/24/25 12:39		
13C9-PFNA (S)	97	%.	40-130		1	11/21/25 13:36	11/24/25 12:39		
d3-MeFOSAA (S)	73	%.	40-170		1	11/21/25 13:36	11/24/25 12:39		
d3-NMeFOSA (S)	65	%.	10-130		1	11/21/25 13:36	11/24/25 12:39		
d5-EtFOSAA (S)	66	%.	25-135		1	11/21/25 13:36	11/24/25 12:39		
d5-NEtFOSA (S)	73	%.	10-130		1	11/21/25 13:36	11/24/25 12:39		
d7-NMeFOSE (S)	48	%.	10-130		1	11/21/25 13:36	11/24/25 12:39		
d9-NEtFOSE (S)	64	%.	10-130		1	11/21/25 13:36	11/24/25 12:39		
13C2-PFTA (S)	67	%.	10-130		1	11/21/25 13:36	11/24/25 12:39		
13C7-PFUdA (S)	90	%.	30-130		1	11/21/25 13:36	11/24/25 12:39		
13C24:2FTS (S)	101	%.	40-200		1	11/21/25 13:36	11/24/25 12:39		
13C26:2FTS (S)	115	%.	40-200		1	11/21/25 13:36	11/24/25 12:39		
13C28:2FTS (S)	112	%.	40-300		1	11/21/25 13:36	11/24/25 12:39		
13C3-PFPPrA (S)	82	%.	5-130		1	11/21/25 13:36	11/24/25 12:39		

4500FC Fluoride

Analytical Method: SM 4500F/C
 Pace Analytical Services - Green Bay

Fluoride	0.10	mg/L	0.10	0.019	1		12/05/25 10:42	16984-48-8	
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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: MW-5	Lab ID: 40304830005	Collected: 11/10/25 08:36	Received: 11/11/25 09:40	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633A Water									
Analytical Method: EPA 1633A Preparation Method: EPA 1633A									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.3	ng/L	6.6	1.3	1	11/21/25 13:36	11/24/25 12:49	763051-92-9	
3:3 FTCA	2.5J	ng/L	8.2	2.1	1	11/21/25 13:36	11/24/25 12:49	356-02-5	
4:2 FTS	<1.6	ng/L	6.6	1.6	1	11/21/25 13:36	11/24/25 12:49	757124-72-4	
5:3 FTCA	13.3J	ng/L	41.1	5.6	1	11/21/25 13:36	11/24/25 12:49	914637-49-3	
6:2 FTS	4180	ng/L	65.8	15.3	10	11/21/25 13:36	11/25/25 22:43	27619-97-2	
7:3 FTCA	<5.3	ng/L	41.1	5.3	1	11/21/25 13:36	11/24/25 12:49	812-70-4	
8:2 FTS	24.5	ng/L	6.6	2.5	1	11/21/25 13:36	11/24/25 12:49	39108-34-4	
9CI-PF3ONS	<1.2	ng/L	6.6	1.2	1	11/21/25 13:36	11/24/25 12:49	756426-58-1	
ADONA	<0.80	ng/L	6.6	0.80	1	11/21/25 13:36	11/24/25 12:49	919005-14-4	
HFPO-DA	<0.99	ng/L	6.6	0.99	1	11/21/25 13:36	11/24/25 12:49	13252-13-6	
NEtFOSAA	<0.44	ng/L	1.6	0.44	1	11/21/25 13:36	11/24/25 12:49	2991-50-6	
NEtFOSA	<0.32	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 12:49	4151-50-2	
NEtFOSE	<3.9	ng/L	16.5	3.9	1	11/21/25 13:36	11/24/25 12:49	1691-99-2	
NFDHA	<0.83	ng/L	3.3	0.83	1	11/21/25 13:36	11/24/25 12:49	151772-58-6	
NMeFOSAA	<0.49	ng/L	1.6	0.49	1	11/21/25 13:36	11/24/25 12:49	2355-31-9	
NMeFOSA	<0.54	ng/L	1.6	0.54	1	11/21/25 13:36	11/24/25 12:49	31506-32-8	
NMeFOSE	<3.0	ng/L	16.5	3.0	1	11/21/25 13:36	11/24/25 12:49	24448-09-7	
PFBS	177	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 12:49	375-73-5	
PFDA	<0.37	ng/L	1.6	0.37	1	11/21/25 13:36	11/24/25 12:49	335-76-2	
PFHxA	1010	ng/L	16.5	3.2	10	11/21/25 13:36	11/25/25 22:43	307-24-4	
PFBA	385	ng/L	6.6	1.3	1	11/21/25 13:36	11/24/25 12:49	375-22-4	
PFDS	<0.49	ng/L	1.6	0.49	1	11/21/25 13:36	11/24/25 12:49	335-77-3	
PFDoS	<0.35	ng/L	1.6	0.35	1	11/21/25 13:36	11/24/25 12:49	79780-39-5	
PFEESA	<0.83	ng/L	3.3	0.83	1	11/21/25 13:36	11/24/25 12:49	113507-82-7	
PFHpS	272	ng/L	1.6	0.43	1	11/21/25 13:36	11/24/25 12:49	375-92-8	
PFMBA	<0.48	ng/L	3.3	0.48	1	11/21/25 13:36	11/24/25 12:49	863090-89-5	
PFMPA	0.65J	ng/L	3.3	0.62	1	11/21/25 13:36	11/24/25 12:49	377-73-1	
PFNS	<0.46	ng/L	1.6	0.46	1	11/21/25 13:36	11/24/25 12:49	68259-12-1	
PFOSA	0.45J	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 12:49	754-91-6	
PFPeA	896	ng/L	32.9	4.6	10	11/21/25 13:36	11/25/25 22:43	2706-90-3	
PFPeS	332	ng/L	1.6	0.27	1	11/21/25 13:36	11/24/25 12:49	2706-91-4	
PFDoA	<0.35	ng/L	1.6	0.35	1	11/21/25 13:36	11/24/25 12:49	307-55-1	
PFHpA	853	ng/L	16.5	3.7	10	11/21/25 13:36	11/25/25 22:43	375-85-9	
PFHxS	7700	ng/L	165	43.8	100	11/21/25 13:36	11/25/25 22:53	355-46-4	
PFNA	77.5	ng/L	1.6	0.33	1	11/21/25 13:36	11/24/25 12:49	375-95-1	
PFOS	2180	ng/L	16.5	5.5	10	11/21/25 13:36	11/25/25 22:43	1763-23-1	
PFOA	3580	ng/L	16.5	4.7	10	11/21/25 13:36	11/25/25 22:43	335-67-1	
PFTeDA	<0.28	ng/L	1.6	0.28	1	11/21/25 13:36	11/24/25 12:49	376-06-7	
PFTTrDA	<0.33	ng/L	1.6	0.33	1	11/21/25 13:36	11/24/25 12:49	72629-94-8	
PFUnA	<0.36	ng/L	1.6	0.36	1	11/21/25 13:36	11/24/25 12:49	2058-94-8	
Surrogates									
13C2-PFDoA (S)	85	%	10-130		1	11/21/25 13:36	11/24/25 12:49		
13C3HFPO-DA (S)	95	%	40-130		1	11/21/25 13:36	11/24/25 12:49		
13C3-PFBS (S)	190	%	40-135		1	11/21/25 13:36	11/24/25 12:49		ES0

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: MW-5		Lab ID: 40304830005			Collected: 11/10/25 08:36	Received: 11/11/25 09:40	Matrix: Water		
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	83	%.	40-130		1	11/21/25 13:36	11/24/25 12:49		
13C4-PFBA (S)	92	%.	5-130		1	11/21/25 13:36	11/24/25 12:49		
13C4-PFHpA (S)	80	%.	40-130		1	11/21/25 13:36	11/24/25 12:49		
13C5-PFHxA (S)	90	%.	40-130		1	11/21/25 13:36	11/24/25 12:49		
13C5-PFPeA (S)	90	%.	40-130		1	11/21/25 13:36	11/24/25 12:49		
13C6-PFDA (S)	84	%.	40-130		1	11/21/25 13:36	11/24/25 12:49		
13C8-PFOA (S)	97	%.	40-130		1	11/21/25 13:36	11/24/25 12:49		
13C8-PFOS (S)	89	%.	40-130		1	11/21/25 13:36	11/24/25 12:49		
13C8-PFOSA (S)	78	%.	40-130		1	11/21/25 13:36	11/24/25 12:49		
13C9-PFNA (S)	85	%.	40-130		1	11/21/25 13:36	11/24/25 12:49		
d3-MeFOSAA (S)	78	%.	40-170		1	11/21/25 13:36	11/24/25 12:49		
d3-NMeFOSA (S)	74	%.	10-130		1	11/21/25 13:36	11/24/25 12:49		
d5-EtFOSAA (S)	78	%.	25-135		1	11/21/25 13:36	11/24/25 12:49		
d5-NEtFOSA (S)	85	%.	10-130		1	11/21/25 13:36	11/24/25 12:49		
d7-NMeFOSE (S)	55	%.	10-130		1	11/21/25 13:36	11/24/25 12:49		
d9-NEtFOSE (S)	81	%.	10-130		1	11/21/25 13:36	11/24/25 12:49		
13C2-PFTA (S)	73	%.	10-130		1	11/21/25 13:36	11/24/25 12:49		
13C7-PFUdA (S)	96	%.	30-130		1	11/21/25 13:36	11/24/25 12:49		
13C24:2FTS (S)	223	%.	40-200		1	11/21/25 13:36	11/24/25 12:49		ES0
13C26:2FTS (S)	130	%.	40-200		1	11/21/25 13:36	11/24/25 12:49		
13C28:2FTS (S)	175	%.	40-300		1	11/21/25 13:36	11/24/25 12:49		
13C3-PFPPrA (S)	36	%.	5-130		1	11/21/25 13:36	11/24/25 12:49		

4500FC Fluoride

Analytical Method: SM 4500F/C
 Pace Analytical Services - Green Bay

Fluoride	0.14	mg/L	0.10	0.019	1		12/05/25 10:45	16984-48-8	
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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: MW-6	Lab ID: 40304830006		Collected: 11/10/25 12:09	Received: 11/11/25 09:40	Matrix: Water				
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633A Water									
Analytical Method: EPA 1633A Preparation Method: EPA 1633A Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<3.1	ng/L	15.4	3.1	1	11/21/25 13:36	11/24/25 12:59	763051-92-9	
3:3 FTCA	5.2J	ng/L	19.3	5.0	1	11/21/25 13:36	11/24/25 12:59	356-02-5	
4:2 FTS	3.8J	ng/L	15.4	3.6	1	11/21/25 13:36	11/24/25 12:59	757124-72-4	
5:3 FTCA	<13.0	ng/L	96.3	13.0	1	11/21/25 13:36	11/24/25 12:59	914637-49-3	
6:2 FTS	278	ng/L	15.4	3.6	1	11/21/25 13:36	11/24/25 12:59	27619-97-2	
7:3 FTCA	<12.5	ng/L	96.3	12.5	1	11/21/25 13:36	11/24/25 12:59	812-70-4	
8:2 FTS	<5.9	ng/L	15.4	5.9	1	11/21/25 13:36	11/24/25 12:59	39108-34-4	
9CI-PF3ONS	<2.8	ng/L	15.4	2.8	1	11/21/25 13:36	11/24/25 12:59	756426-58-1	
ADONA	<1.9	ng/L	15.4	1.9	1	11/21/25 13:36	11/24/25 12:59	919005-14-4	
HFPO-DA	<2.3	ng/L	15.4	2.3	1	11/21/25 13:36	11/24/25 12:59	13252-13-6	
NEtFOSAA	<1.0	ng/L	3.9	1.0	1	11/21/25 13:36	11/24/25 12:59	2991-50-6	
NEtFOSA	<0.76	ng/L	3.9	0.76	1	11/21/25 13:36	11/24/25 12:59	4151-50-2	
NEtFOSE	<9.1	ng/L	38.5	9.1	1	11/21/25 13:36	11/24/25 12:59	1691-99-2	
NFDHA	<2.0	ng/L	7.7	2.0	1	11/21/25 13:36	11/24/25 12:59	151772-58-6	
NMeFOSAA	<1.2	ng/L	3.9	1.2	1	11/21/25 13:36	11/24/25 12:59	2355-31-9	
NMeFOSA	<1.3	ng/L	3.9	1.3	1	11/21/25 13:36	11/24/25 12:59	31506-32-8	
NMeFOSE	<6.9	ng/L	38.5	6.9	1	11/21/25 13:36	11/24/25 12:59	24448-09-7	
PFBS	714	ng/L	3.9	0.73	1	11/21/25 13:36	11/24/25 12:59	375-73-5	
PFDA	<0.86	ng/L	3.9	0.86	1	11/21/25 13:36	11/24/25 12:59	335-76-2	
PFHxA	3540	ng/L	77.1	14.9	20	11/21/25 13:36	11/25/25 23:03	307-24-4	
PFBA	994	ng/L	15.4	3.1	1	11/21/25 13:36	11/24/25 12:59	375-22-4	
PFDS	<1.1	ng/L	3.9	1.1	1	11/21/25 13:36	11/24/25 12:59	335-77-3	
PFDoS	<0.82	ng/L	3.9	0.82	1	11/21/25 13:36	11/24/25 12:59	79780-39-5	
PFEESA	<1.9	ng/L	7.7	1.9	1	11/21/25 13:36	11/24/25 12:59	113507-82-7	
PFHpS	18.2	ng/L	3.9	1.0	1	11/21/25 13:36	11/24/25 12:59	375-92-8	
PFMBA	2.4J	ng/L	7.7	1.1	1	11/21/25 13:36	11/24/25 12:59	863090-89-5	
PFMPA	2.1J	ng/L	7.7	1.4	1	11/21/25 13:36	11/24/25 12:59	377-73-1	
PFNS	<1.1	ng/L	3.9	1.1	1	11/21/25 13:36	11/24/25 12:59	68259-12-1	
PFOSA	<0.75	ng/L	3.9	0.75	1	11/21/25 13:36	11/24/25 12:59	754-91-6	
PFPeA	2040	ng/L	154	21.4	20	11/21/25 13:36	11/25/25 23:03	2706-90-3	
PFPeS	608	ng/L	3.9	0.62	1	11/21/25 13:36	11/24/25 12:59	2706-91-4	
PFDoA	<0.81	ng/L	3.9	0.81	1	11/21/25 13:36	11/24/25 12:59	307-55-1	
PFHpA	568	ng/L	3.9	0.86	1	11/21/25 13:36	11/24/25 12:59	375-85-9	
PFHxS	12300	ng/L	77.1	20.5	20	11/21/25 13:36	11/25/25 23:03	355-46-4	
PFNA	16.8	ng/L	3.9	0.77	1	11/21/25 13:36	11/24/25 12:59	375-95-1	
PFOS	18.5	ng/L	3.9	1.3	1	11/21/25 13:36	11/24/25 12:59	1763-23-1	
PFOA	12700	ng/L	77.1	22.1	20	11/21/25 13:36	11/25/25 23:03	335-67-1	
PFTeDA	<0.65	ng/L	3.9	0.65	1	11/21/25 13:36	11/24/25 12:59	376-06-7	
PFTTrDA	<0.77	ng/L	3.9	0.77	1	11/21/25 13:36	11/24/25 12:59	72629-94-8	
PFUnA	<0.84	ng/L	3.9	0.84	1	11/21/25 13:36	11/24/25 12:59	2058-94-8	
Surrogates									
13C2-PFDoA (S)	64	%	10-130		1	11/21/25 13:36	11/24/25 12:59		
13C3HFPO-DA (S)	98	%	40-130		1	11/21/25 13:36	11/24/25 12:59		
13C3-PFBS (S)	148	%	40-135		1	11/21/25 13:36	11/24/25 12:59		ES0

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: MW-6	Lab ID: 40304830006			Collected: 11/10/25 12:09	Received: 11/11/25 09:40	Matrix: Water			
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	79	%.	40-130		1	11/21/25 13:36	11/24/25 12:59		
13C4-PFBA (S)	93	%.	5-130		1	11/21/25 13:36	11/24/25 12:59		
13C4-PFHpA (S)	90	%.	40-130		1	11/21/25 13:36	11/24/25 12:59		
13C5-PFHxA (S)	89	%.	40-130		1	11/21/25 13:36	11/24/25 12:59		
13C5-PFPeA (S)	91	%.	40-130		1	11/21/25 13:36	11/24/25 12:59		
13C6-PFDA (S)	81	%.	40-130		1	11/21/25 13:36	11/24/25 12:59		
13C8-PFOA (S)	97	%.	40-130		1	11/21/25 13:36	11/24/25 12:59		
13C8-PFOS (S)	77	%.	40-130		1	11/21/25 13:36	11/24/25 12:59		
13C8-PFOSA (S)	55	%.	40-130		1	11/21/25 13:36	11/24/25 12:59		
13C9-PFNA (S)	84	%.	40-130		1	11/21/25 13:36	11/24/25 12:59		
d3-MeFOSAA (S)	64	%.	40-170		1	11/21/25 13:36	11/24/25 12:59		
d3-NMeFOSA (S)	48	%.	10-130		1	11/21/25 13:36	11/24/25 12:59		
d5-EtFOSAA (S)	55	%.	25-135		1	11/21/25 13:36	11/24/25 12:59		
d5-NEtFOSA (S)	57	%.	10-130		1	11/21/25 13:36	11/24/25 12:59		
d7-NMeFOSE (S)	34	%.	10-130		1	11/21/25 13:36	11/24/25 12:59		
d9-NEtFOSE (S)	49	%.	10-130		1	11/21/25 13:36	11/24/25 12:59		
13C2-PFTA (S)	59	%.	10-130		1	11/21/25 13:36	11/24/25 12:59		
13C7-PFUdA (S)	80	%.	30-130		1	11/21/25 13:36	11/24/25 12:59		
13C24:2FTS (S)	159	%.	40-200		1	11/21/25 13:36	11/24/25 12:59		
13C26:2FTS (S)	132	%.	40-200		1	11/21/25 13:36	11/24/25 12:59		
13C28:2FTS (S)	147	%.	40-300		1	11/21/25 13:36	11/24/25 12:59		
13C3-PFPPrA (S)	63	%.	5-130		1	11/21/25 13:36	11/24/25 12:59		

4500FC Fluoride

Analytical Method: SM 4500F/C
 Pace Analytical Services - Green Bay

Fluoride	0.061J	mg/L	0.10	0.019	1		12/05/25 10:48	16984-48-8	
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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: MW-7	Lab ID: 40304830007	Collected: 11/10/25 15:01	Received: 11/11/25 09:40	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633A Water									
Analytical Method: EPA 1633A Preparation Method: EPA 1633A									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<2.5	ng/L	12.3	2.5	1	11/21/25 13:36	11/24/25 13:09	763051-92-9	
3:3 FTCA	381	ng/L	15.4	4.0	1	11/21/25 13:36	11/24/25 13:09	356-02-5	
4:2 FTS	135	ng/L	12.3	2.9	1	11/21/25 13:36	11/24/25 13:09	757124-72-4	
5:3 FTCA	42.8J	ng/L	77.0	10.4	1	11/21/25 13:36	11/24/25 13:09	914637-49-3	
6:2 FTS	8400	ng/L	123	28.7	10	11/21/25 13:36	11/25/25 23:14	27619-97-2	
7:3 FTCA	<10	ng/L	77.0	10	1	11/21/25 13:36	11/24/25 13:09	812-70-4	
8:2 FTS	<4.7	ng/L	12.3	4.7	1	11/21/25 13:36	11/24/25 13:09	39108-34-4	
9CI-PF3ONS	<2.2	ng/L	12.3	2.2	1	11/21/25 13:36	11/24/25 13:09	756426-58-1	
ADONA	<1.5	ng/L	12.3	1.5	1	11/21/25 13:36	11/24/25 13:09	919005-14-4	
HFPO-DA	<1.9	ng/L	12.3	1.9	1	11/21/25 13:36	11/24/25 13:09	13252-13-6	
NEtFOSAA	<0.83	ng/L	3.1	0.83	1	11/21/25 13:36	11/24/25 13:09	2991-50-6	
NEtFOSA	<0.61	ng/L	3.1	0.61	1	11/21/25 13:36	11/24/25 13:09	4151-50-2	
NEtFOSE	<7.3	ng/L	30.8	7.3	1	11/21/25 13:36	11/24/25 13:09	1691-99-2	
NFDHA	<1.6	ng/L	6.2	1.6	1	11/21/25 13:36	11/24/25 13:09	151772-58-6	
NMeFOSAA	<0.93	ng/L	3.1	0.93	1	11/21/25 13:36	11/24/25 13:09	2355-31-9	
NMeFOSA	<1.0	ng/L	3.1	1.0	1	11/21/25 13:36	11/24/25 13:09	31506-32-8	
NMeFOSE	<5.5	ng/L	30.8	5.5	1	11/21/25 13:36	11/24/25 13:09	24448-09-7	
PFBS	16200	ng/L	30.8	5.8	10	11/21/25 13:36	11/25/25 23:14	375-73-5	
PFDA	<0.69	ng/L	3.1	0.69	1	11/21/25 13:36	11/24/25 13:09	335-76-2	
PFHxA	67900	ng/L	308	59.7	100	11/21/25 13:36	11/25/25 23:24	307-24-4	
PFBA	9690	ng/L	123	24.5	10	11/21/25 13:36	11/25/25 23:14	375-22-4	
PFDS	<0.91	ng/L	3.1	0.91	1	11/21/25 13:36	11/24/25 13:09	335-77-3	
PFDoS	<0.65	ng/L	3.1	0.65	1	11/21/25 13:36	11/24/25 13:09	79780-39-5	
PFEESA	13.3	ng/L	6.2	1.5	1	11/21/25 13:36	11/24/25 13:09	113507-82-7	
PFHpS	116	ng/L	3.1	0.80	1	11/21/25 13:36	11/24/25 13:09	375-92-8	
PFMBA	71.8	ng/L	6.2	0.90	1	11/21/25 13:36	11/24/25 13:09	863090-89-5	
PFMPA	50.5	ng/L	6.2	1.2	1	11/21/25 13:36	11/24/25 13:09	377-73-1	
PFNS	<0.86	ng/L	3.1	0.86	1	11/21/25 13:36	11/24/25 13:09	68259-12-1	
PFOSA	<0.60	ng/L	3.1	0.60	1	11/21/25 13:36	11/24/25 13:09	754-91-6	
PFPeA	42400	ng/L	616	85.7	100	11/21/25 13:36	11/25/25 23:24	2706-90-3	
PFPeS	13600	ng/L	30.8	5.0	10	11/21/25 13:36	11/25/25 23:14	2706-91-4	
PFDoA	<0.65	ng/L	3.1	0.65	1	11/21/25 13:36	11/24/25 13:09	307-55-1	
PFHpA	14500	ng/L	30.8	6.9	10	11/21/25 13:36	11/25/25 23:14	375-85-9	
PFHxS	179000	ng/L	308	82.0	100	11/21/25 13:36	11/25/25 23:24	355-46-4	E
PFNA	22.5	ng/L	3.1	0.61	1	11/21/25 13:36	11/24/25 13:09	375-95-1	I
PFOS	25.6	ng/L	3.1	1.0	1	11/21/25 13:36	11/24/25 13:09	1763-23-1	I
PFOA	102000	ng/L	308	88.4	100	11/21/25 13:36	11/25/25 23:24	335-67-1	
PFTeDA	<0.52	ng/L	3.1	0.52	1	11/21/25 13:36	11/24/25 13:09	376-06-7	
PFTTrDA	<0.62	ng/L	3.1	0.62	1	11/21/25 13:36	11/24/25 13:09	72629-94-8	
PFUnA	<0.67	ng/L	3.1	0.67	1	11/21/25 13:36	11/24/25 13:09	2058-94-8	
Surrogates									
13C2-PFDoA (S)	77	%	10-130		1	11/21/25 13:36	11/24/25 13:09		
13C3HFPO-DA (S)	147	%	40-130		1	11/21/25 13:36	11/24/25 13:09		ES0
13C3-PFBS (S)	175	%	40-135		1	11/21/25 13:36	11/24/25 13:09		ES0

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: MW-7		Lab ID: 40304830007			Collected: 11/10/25 15:01	Received: 11/11/25 09:40	Matrix: Water		
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	49	%.	40-130		1	11/21/25 13:36	11/24/25 13:09		
13C4-PFBA (S)	92	%.	5-130		1	11/21/25 13:36	11/24/25 13:09		
13C4-PFHpA (S)	68	%.	40-130		1	11/21/25 13:36	11/24/25 13:09		
13C5-PFHxA (S)	61	%.	40-130		1	11/21/25 13:36	11/24/25 13:09		
13C5-PFPeA (S)	60	%.	40-130		1	11/21/25 13:36	11/24/25 13:09		
13C6-PFDA (S)	92	%.	40-130		1	11/21/25 13:36	11/24/25 13:09		
13C8-PFOA (S)	91	%.	40-130		1	11/21/25 13:36	11/24/25 13:09		
13C8-PFOS (S)	87	%.	40-130		1	11/21/25 13:36	11/24/25 13:09		
13C8-PFOSA (S)	75	%.	40-130		1	11/21/25 13:36	11/24/25 13:09		
13C9-PFNA (S)	89	%.	40-130		1	11/21/25 13:36	11/24/25 13:09		
d3-MeFOSAA (S)	78	%.	40-170		1	11/21/25 13:36	11/24/25 13:09		
d3-NMeFOSA (S)	72	%.	10-130		1	11/21/25 13:36	11/24/25 13:09		
d5-EtFOSAA (S)	71	%.	25-135		1	11/21/25 13:36	11/24/25 13:09		
d5-NEtFOSA (S)	82	%.	10-130		1	11/21/25 13:36	11/24/25 13:09		
d7-NMeFOSE (S)	54	%.	10-130		1	11/21/25 13:36	11/24/25 13:09		ES7
d9-NEtFOSE (S)	76	%.	10-130		1	11/21/25 13:36	11/24/25 13:09		
13C2-PFTA (S)	69	%.	10-130		1	11/21/25 13:36	11/24/25 13:09		
13C7-PFUdA (S)	89	%.	30-130		1	11/21/25 13:36	11/24/25 13:09		
13C24:2FTS (S)	501	%.	40-200		1	11/21/25 13:36	11/24/25 13:09		ES0
13C26:2FTS (S)	130	%.	40-200		1	11/21/25 13:36	11/24/25 13:09		
13C28:2FTS (S)	462	%.	40-300		1	11/21/25 13:36	11/24/25 13:09		ES0
13C3-PFPPrA (S)	28	%.	5-130		1	11/21/25 13:36	11/24/25 13:09		

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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: DUPLICATE MW-6	Lab ID: 40304830008	Collected: 11/10/25 12:15	Received: 11/11/25 09:40	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633A Water									
Analytical Method: EPA 1633A Preparation Method: EPA 1633A									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<3.0	ng/L	14.7	3.0	1	11/21/25 13:36	11/24/25 13:19	763051-92-9	
3:3 FTCA	5.2J	ng/L	18.3	4.7	1	11/21/25 13:36	11/24/25 13:19	356-02-5	
4:2 FTS	3.7J	ng/L	14.7	3.5	1	11/21/25 13:36	11/24/25 13:19	757124-72-4	
5:3 FTCA	<12.4	ng/L	91.6	12.4	1	11/21/25 13:36	11/24/25 13:19	914637-49-3	
6:2 FTS	380	ng/L	14.7	3.4	1	11/21/25 13:36	11/24/25 13:19	27619-97-2	
7:3 FTCA	<11.9	ng/L	91.6	11.9	1	11/21/25 13:36	11/24/25 13:19	812-70-4	
8:2 FTS	<5.6	ng/L	14.7	5.6	1	11/21/25 13:36	11/24/25 13:19	39108-34-4	
9CI-PF3ONS	<2.7	ng/L	14.7	2.7	1	11/21/25 13:36	11/24/25 13:19	756426-58-1	
ADONA	<1.8	ng/L	14.7	1.8	1	11/21/25 13:36	11/24/25 13:19	919005-14-4	
HFPO-DA	<2.2	ng/L	14.7	2.2	1	11/21/25 13:36	11/24/25 13:19	13252-13-6	
NEtFOSAA	<0.98	ng/L	3.7	0.98	1	11/21/25 13:36	11/24/25 13:19	2991-50-6	
NEtFOSA	<0.72	ng/L	3.7	0.72	1	11/21/25 13:36	11/24/25 13:19	4151-50-2	
NEtFOSE	<8.6	ng/L	36.6	8.6	1	11/21/25 13:36	11/24/25 13:19	1691-99-2	
NFDHA	<1.9	ng/L	7.3	1.9	1	11/21/25 13:36	11/24/25 13:19	151772-58-6	
NMeFOSAA	<1.1	ng/L	3.7	1.1	1	11/21/25 13:36	11/24/25 13:19	2355-31-9	
NMeFOSA	<1.2	ng/L	3.7	1.2	1	11/21/25 13:36	11/24/25 13:19	31506-32-8	
NMeFOSE	<6.6	ng/L	36.6	6.6	1	11/21/25 13:36	11/24/25 13:19	24448-09-7	
PFBS	772	ng/L	3.7	0.69	1	11/21/25 13:36	11/24/25 13:19	375-73-5	
PFDA	<0.82	ng/L	3.7	0.82	1	11/21/25 13:36	11/24/25 13:19	335-76-2	
PFHxA	4240	ng/L	73.3	14.2	20	11/21/25 13:36	11/25/25 23:34	307-24-4	
PFBA	1040	ng/L	14.7	2.9	1	11/21/25 13:36	11/24/25 13:19	375-22-4	
PFDS	<1.1	ng/L	3.7	1.1	1	11/21/25 13:36	11/24/25 13:19	335-77-3	
PFDoS	<0.78	ng/L	3.7	0.78	1	11/21/25 13:36	11/24/25 13:19	79780-39-5	
PFEESA	<1.8	ng/L	7.3	1.8	1	11/21/25 13:36	11/24/25 13:19	113507-82-7	
PFHpS	30.8	ng/L	3.7	0.95	1	11/21/25 13:36	11/24/25 13:19	375-92-8	
PFMBA	2.1J	ng/L	7.3	1.1	1	11/21/25 13:36	11/24/25 13:19	863090-89-5	
PFMPA	2.9J	ng/L	7.3	1.4	1	11/21/25 13:36	11/24/25 13:19	377-73-1	
PFNS	<1.0	ng/L	3.7	1.0	1	11/21/25 13:36	11/24/25 13:19	68259-12-1	
PFOSA	<0.71	ng/L	3.7	0.71	1	11/21/25 13:36	11/24/25 13:19	754-91-6	
PFPeA	2070	ng/L	147	20.4	20	11/21/25 13:36	11/25/25 23:34	2706-90-3	
PFPeS	957	ng/L	3.7	0.59	1	11/21/25 13:36	11/24/25 13:19	2706-91-4	
PFDoA	<0.77	ng/L	3.7	0.77	1	11/21/25 13:36	11/24/25 13:19	307-55-1	
PFHpA	784	ng/L	3.7	0.82	1	11/21/25 13:36	11/24/25 13:19	375-85-9	
PFHxS	21500	ng/L	73.3	19.5	20	11/21/25 13:36	11/25/25 23:34	355-46-4	
PFNA	29.8	ng/L	3.7	0.73	1	11/21/25 13:36	11/24/25 13:19	375-95-1	
PFOS	33.7	ng/L	3.7	1.2	1	11/21/25 13:36	11/24/25 13:19	1763-23-1	I
PFOA	19100	ng/L	73.3	21.0	20	11/21/25 13:36	11/25/25 23:34	335-67-1	
PFTeDA	<0.61	ng/L	3.7	0.61	1	11/21/25 13:36	11/24/25 13:19	376-06-7	
PFTTrDA	<0.73	ng/L	3.7	0.73	1	11/21/25 13:36	11/24/25 13:19	72629-94-8	
PFUnA	<0.79	ng/L	3.7	0.79	1	11/21/25 13:36	11/24/25 13:19	2058-94-8	
Surrogates									
13C2-PFDoA (S)	67	%	10-130		1	11/21/25 13:36	11/24/25 13:19		
13C3HFPO-DA (S)	97	%	40-130		1	11/21/25 13:36	11/24/25 13:19		
13C3-PFBS (S)	178	%	40-135		1	11/21/25 13:36	11/24/25 13:19		ES0

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: DUPLICATE MW-6	Lab ID: 40304830008			Collected: 11/10/25 12:15	Received: 11/11/25 09:40	Matrix: Water			
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	76	%.	40-130		1	11/21/25 13:36	11/24/25 13:19		
13C4-PFBA (S)	89	%.	5-130		1	11/21/25 13:36	11/24/25 13:19		
13C4-PFHpA (S)	87	%.	40-130		1	11/21/25 13:36	11/24/25 13:19		
13C5-PFHxA (S)	86	%.	40-130		1	11/21/25 13:36	11/24/25 13:19		
13C5-PFPeA (S)	93	%.	40-130		1	11/21/25 13:36	11/24/25 13:19		
13C6-PFDA (S)	82	%.	40-130		1	11/21/25 13:36	11/24/25 13:19		
13C8-PFOA (S)	98	%.	40-130		1	11/21/25 13:36	11/24/25 13:19		
13C8-PFOS (S)	81	%.	40-130		1	11/21/25 13:36	11/24/25 13:19		
13C8-PFOSA (S)	67	%.	40-130		1	11/21/25 13:36	11/24/25 13:19		
13C9-PFNA (S)	80	%.	40-130		1	11/21/25 13:36	11/24/25 13:19		
d3-MeFOSAA (S)	60	%.	40-170		1	11/21/25 13:36	11/24/25 13:19		
d3-NMeFOSA (S)	56	%.	10-130		1	11/21/25 13:36	11/24/25 13:19		
d5-EtFOSAA (S)	54	%.	25-135		1	11/21/25 13:36	11/24/25 13:19		
d5-NEtFOSA (S)	64	%.	10-130		1	11/21/25 13:36	11/24/25 13:19		
d7-NMeFOSE (S)	41	%.	10-130		1	11/21/25 13:36	11/24/25 13:19		ES7
d9-NEtFOSE (S)	58	%.	10-130		1	11/21/25 13:36	11/24/25 13:19		
13C2-PFTA (S)	62	%.	10-130		1	11/21/25 13:36	11/24/25 13:19		
13C7-PFUdA (S)	79	%.	30-130		1	11/21/25 13:36	11/24/25 13:19		
13C24:2FTS (S)	196	%.	40-200		1	11/21/25 13:36	11/24/25 13:19		
13C26:2FTS (S)	134	%.	40-200		1	11/21/25 13:36	11/24/25 13:19		
13C28:2FTS (S)	174	%.	40-300		1	11/21/25 13:36	11/24/25 13:19		
13C3-PFPPrA (S)	50	%.	5-130		1	11/21/25 13:36	11/24/25 13:19		

4500FC Fluoride

Analytical Method: SM 4500F/C
 Pace Analytical Services - Green Bay

Fluoride	0.052J	mg/L	0.10	0.019	1		12/05/25 10:49	16984-48-8	
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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: TRIP BLANK	Lab ID: 40304830009	Collected: 11/10/25 12:04	Received: 11/11/25 09:40	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633A Water									
Analytical Method: EPA 1633A Preparation Method: EPA 1633A Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.3	ng/L	6.5	1.3	1	11/21/25 13:36	11/24/25 13:30	763051-92-9	
3:3 FTCA	<2.1	ng/L	8.1	2.1	1	11/21/25 13:36	11/24/25 13:30	356-02-5	
4:2 FTS	<1.5	ng/L	6.5	1.5	1	11/21/25 13:36	11/24/25 13:30	757124-72-4	
5:3 FTCA	<5.5	ng/L	40.3	5.5	1	11/21/25 13:36	11/24/25 13:30	914637-49-3	
6:2 FTS	<1.5	ng/L	6.5	1.5	1	11/21/25 13:36	11/24/25 13:30	27619-97-2	
7:3 FTCA	<5.2	ng/L	40.3	5.2	1	11/21/25 13:36	11/24/25 13:30	812-70-4	
8:2 FTS	<2.5	ng/L	6.5	2.5	1	11/21/25 13:36	11/24/25 13:30	39108-34-4	
9CI-PF3ONS	<1.2	ng/L	6.5	1.2	1	11/21/25 13:36	11/24/25 13:30	756426-58-1	
ADONA	<0.78	ng/L	6.5	0.78	1	11/21/25 13:36	11/24/25 13:30	919005-14-4	
HFPO-DA	<0.97	ng/L	6.5	0.97	1	11/21/25 13:36	11/24/25 13:30	13252-13-6	
NEtFOSAA	<0.43	ng/L	1.6	0.43	1	11/21/25 13:36	11/24/25 13:30	2991-50-6	
NEtFOSA	<0.32	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 13:30	4151-50-2	
NEtFOSE	<3.8	ng/L	16.1	3.8	1	11/21/25 13:36	11/24/25 13:30	1691-99-2	
NFDHA	<0.82	ng/L	3.2	0.82	1	11/21/25 13:36	11/24/25 13:30	151772-58-6	
NMeFOSAA	<0.49	ng/L	1.6	0.49	1	11/21/25 13:36	11/24/25 13:30	2355-31-9	
NMeFOSA	<0.53	ng/L	1.6	0.53	1	11/21/25 13:36	11/24/25 13:30	31506-32-8	
NMeFOSE	<2.9	ng/L	16.1	2.9	1	11/21/25 13:36	11/24/25 13:30	24448-09-7	
PFBS	<0.30	ng/L	1.6	0.30	1	11/21/25 13:36	11/24/25 13:30	375-73-5	
PFDA	<0.36	ng/L	1.6	0.36	1	11/21/25 13:36	11/24/25 13:30	335-76-2	
PFHxA	<0.31	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 13:30	307-24-4	
PFBA	<1.3	ng/L	6.5	1.3	1	11/21/25 13:36	11/24/25 13:30	375-22-4	
PFDS	<0.48	ng/L	1.6	0.48	1	11/21/25 13:36	11/24/25 13:30	335-77-3	
PFDoS	<0.34	ng/L	1.6	0.34	1	11/21/25 13:36	11/24/25 13:30	79780-39-5	
PFEESA	<0.81	ng/L	3.2	0.81	1	11/21/25 13:36	11/24/25 13:30	113507-82-7	
PFHpS	<0.42	ng/L	1.6	0.42	1	11/21/25 13:36	11/24/25 13:30	375-92-8	
PFMBA	<0.47	ng/L	3.2	0.47	1	11/21/25 13:36	11/24/25 13:30	863090-89-5	
PFMPA	<0.60	ng/L	3.2	0.60	1	11/21/25 13:36	11/24/25 13:30	377-73-1	
PFNS	<0.45	ng/L	1.6	0.45	1	11/21/25 13:36	11/24/25 13:30	68259-12-1	
PFOSA	<0.31	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 13:30	754-91-6	
PFPeA	<0.45	ng/L	3.2	0.45	1	11/21/25 13:36	11/24/25 13:30	2706-90-3	
PFPeS	<0.26	ng/L	1.6	0.26	1	11/21/25 13:36	11/24/25 13:30	2706-91-4	
PFDoA	<0.34	ng/L	1.6	0.34	1	11/21/25 13:36	11/24/25 13:30	307-55-1	
PFHpA	<0.36	ng/L	1.6	0.36	1	11/21/25 13:36	11/24/25 13:30	375-85-9	
PFHxS	0.87J	ng/L	1.6	0.43	1	11/21/25 13:36	11/24/25 13:30	355-46-4	
PFNA	<0.32	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 13:30	375-95-1	
PFOS	<0.54	ng/L	1.6	0.54	1	11/21/25 13:36	11/24/25 13:30	1763-23-1	
PFOA	<0.46	ng/L	1.6	0.46	1	11/21/25 13:36	11/24/25 13:30	335-67-1	
PFTeDA	<0.27	ng/L	1.6	0.27	1	11/21/25 13:36	11/24/25 13:30	376-06-7	
PFTTrDA	<0.32	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 13:30	72629-94-8	
PFUnA	<0.35	ng/L	1.6	0.35	1	11/21/25 13:36	11/24/25 13:30	2058-94-8	
Surrogates									
13C2-PFDoA (S)	81	%	10-130		1	11/21/25 13:36	11/24/25 13:30		
13C3HFPO-DA (S)	101	%	40-130		1	11/21/25 13:36	11/24/25 13:30		
13C3-PFBS (S)	103	%	40-135		1	11/21/25 13:36	11/24/25 13:30		

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: TRIP BLANK		Lab ID: 40304830009		Collected: 11/10/25 12:04	Received: 11/11/25 09:40	Matrix: Water			
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	99	%.	40-130		1	11/21/25 13:36	11/24/25 13:30		
13C4-PFBA (S)	99	%.	5-130		1	11/21/25 13:36	11/24/25 13:30		
13C4-PFHpA (S)	98	%.	40-130		1	11/21/25 13:36	11/24/25 13:30		
13C5-PFHxA (S)	100	%.	40-130		1	11/21/25 13:36	11/24/25 13:30		
13C5-PFPeA (S)	99	%.	40-130		1	11/21/25 13:36	11/24/25 13:30		
13C6-PFDA (S)	96	%.	40-130		1	11/21/25 13:36	11/24/25 13:30		
13C8-PFOA (S)	103	%.	40-130		1	11/21/25 13:36	11/24/25 13:30		
13C8-PFOS (S)	94	%.	40-130		1	11/21/25 13:36	11/24/25 13:30		
13C8-PFOA (S)	78	%.	40-130		1	11/21/25 13:36	11/24/25 13:30		
13C9-PFNA (S)	97	%.	40-130		1	11/21/25 13:36	11/24/25 13:30		
d3-MeFOSAA (S)	96	%.	40-170		1	11/21/25 13:36	11/24/25 13:30		
d3-NMeFOSA (S)	75	%.	10-130		1	11/21/25 13:36	11/24/25 13:30		
d5-EtFOSAA (S)	84	%.	25-135		1	11/21/25 13:36	11/24/25 13:30		
d5-NEtFOSA (S)	90	%.	10-130		1	11/21/25 13:36	11/24/25 13:30		
d7-NMeFOSE (S)	56	%.	10-130		1	11/21/25 13:36	11/24/25 13:30		ES7
d9-NEtFOSE (S)	83	%.	10-130		1	11/21/25 13:36	11/24/25 13:30		
13C2-PFTA (S)	72	%.	10-130		1	11/21/25 13:36	11/24/25 13:30		
13C7-PFUdA (S)	93	%.	30-130		1	11/21/25 13:36	11/24/25 13:30		
13C24:2FTS (S)	111	%.	40-200		1	11/21/25 13:36	11/24/25 13:30		
13C26:2FTS (S)	101	%.	40-200		1	11/21/25 13:36	11/24/25 13:30		
13C28:2FTS (S)	100	%.	40-300		1	11/21/25 13:36	11/24/25 13:30		
13C3-PFPPrA (S)	98	%.	5-130		1	11/21/25 13:36	11/24/25 13:30		

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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: EQUIPMENT BLANK	Lab ID: 40304830010	Collected: 11/10/25 11:06	Received: 11/11/25 09:40	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633A Water									
Analytical Method: EPA 1633A Preparation Method: EPA 1633A									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<1.3	ng/L	6.3	1.3	1	11/21/25 13:36	11/24/25 13:40	763051-92-9	
3:3 FTCA	<2.0	ng/L	7.8	2.0	1	11/21/25 13:36	11/24/25 13:40	356-02-5	
4:2 FTS	<1.5	ng/L	6.3	1.5	1	11/21/25 13:36	11/24/25 13:40	757124-72-4	
5:3 FTCA	<5.3	ng/L	39.2	5.3	1	11/21/25 13:36	11/24/25 13:40	914637-49-3	
6:2 FTS	<1.5	ng/L	6.3	1.5	1	11/21/25 13:36	11/24/25 13:40	27619-97-2	
7:3 FTCA	<5.1	ng/L	39.2	5.1	1	11/21/25 13:36	11/24/25 13:40	812-70-4	
8:2 FTS	<2.4	ng/L	6.3	2.4	1	11/21/25 13:36	11/24/25 13:40	39108-34-4	
9CI-PF3ONS	<1.1	ng/L	6.3	1.1	1	11/21/25 13:36	11/24/25 13:40	756426-58-1	
ADONA	<0.76	ng/L	6.3	0.76	1	11/21/25 13:36	11/24/25 13:40	919005-14-4	
HFPO-DA	<0.94	ng/L	6.3	0.94	1	11/21/25 13:36	11/24/25 13:40	13252-13-6	
NEtFOSAA	<0.42	ng/L	1.6	0.42	1	11/21/25 13:36	11/24/25 13:40	2991-50-6	
NEtFOSA	<0.31	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 13:40	4151-50-2	
NEtFOSE	<3.7	ng/L	15.7	3.7	1	11/21/25 13:36	11/24/25 13:40	1691-99-2	
NFDHA	<0.80	ng/L	3.1	0.80	1	11/21/25 13:36	11/24/25 13:40	151772-58-6	
NMeFOSAA	<0.47	ng/L	1.6	0.47	1	11/21/25 13:36	11/24/25 13:40	2355-31-9	
NMeFOSA	<0.52	ng/L	1.6	0.52	1	11/21/25 13:36	11/24/25 13:40	31506-32-8	
NMeFOSE	<2.8	ng/L	15.7	2.8	1	11/21/25 13:36	11/24/25 13:40	24448-09-7	
PFBS	<0.30	ng/L	1.6	0.30	1	11/21/25 13:36	11/24/25 13:40	375-73-5	
PFDA	<0.35	ng/L	1.6	0.35	1	11/21/25 13:36	11/24/25 13:40	335-76-2	
PFHxA	<0.30	ng/L	1.6	0.30	1	11/21/25 13:36	11/24/25 13:40	307-24-4	
PFBA	<1.2	ng/L	6.3	1.2	1	11/21/25 13:36	11/24/25 13:40	375-22-4	
PFDS	<0.46	ng/L	1.6	0.46	1	11/21/25 13:36	11/24/25 13:40	335-77-3	
PFDoS	<0.33	ng/L	1.6	0.33	1	11/21/25 13:36	11/24/25 13:40	79780-39-5	
PFEESA	<0.79	ng/L	3.1	0.79	1	11/21/25 13:36	11/24/25 13:40	113507-82-7	
PFHpS	<0.41	ng/L	1.6	0.41	1	11/21/25 13:36	11/24/25 13:40	375-92-8	
PFMBA	<0.46	ng/L	3.1	0.46	1	11/21/25 13:36	11/24/25 13:40	863090-89-5	
PFMPA	<0.59	ng/L	3.1	0.59	1	11/21/25 13:36	11/24/25 13:40	377-73-1	
PFNS	<0.44	ng/L	1.6	0.44	1	11/21/25 13:36	11/24/25 13:40	68259-12-1	
PFOSA	<0.30	ng/L	1.6	0.30	1	11/21/25 13:36	11/24/25 13:40	754-91-6	
PFPeA	<0.44	ng/L	3.1	0.44	1	11/21/25 13:36	11/24/25 13:40	2706-90-3	
PFPeS	<0.25	ng/L	1.6	0.25	1	11/21/25 13:36	11/24/25 13:40	2706-91-4	
PFDoA	<0.33	ng/L	1.6	0.33	1	11/21/25 13:36	11/24/25 13:40	307-55-1	
PFHpA	<0.35	ng/L	1.6	0.35	1	11/21/25 13:36	11/24/25 13:40	375-85-9	
PFHxS	1.1J	ng/L	1.6	0.42	1	11/21/25 13:36	11/24/25 13:40	355-46-4	
PFNA	<0.31	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 13:40	375-95-1	
PFOS	<0.52	ng/L	1.6	0.52	1	11/21/25 13:36	11/24/25 13:40	1763-23-1	
PFOA	0.46J	ng/L	1.6	0.45	1	11/21/25 13:36	11/24/25 13:40	335-67-1	
PFTeDA	<0.26	ng/L	1.6	0.26	1	11/21/25 13:36	11/24/25 13:40	376-06-7	
PFTTrDA	<0.31	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 13:40	72629-94-8	
PFUnA	<0.34	ng/L	1.6	0.34	1	11/21/25 13:36	11/24/25 13:40	2058-94-8	
Surrogates									
13C2-PFDoA (S)	75	%	10-130		1	11/21/25 13:36	11/24/25 13:40		
13C3HFPO-DA (S)	89	%	40-130		1	11/21/25 13:36	11/24/25 13:40		
13C3-PFBS (S)	97	%	40-135		1	11/21/25 13:36	11/24/25 13:40		

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: EQUIPMENT BLANK	Lab ID: 40304830010	Collected: 11/10/25 11:06	Received: 11/11/25 09:40	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	90	%.	40-130		1	11/21/25 13:36	11/24/25 13:40		
13C4-PFBA (S)	90	%.	5-130		1	11/21/25 13:36	11/24/25 13:40		
13C4-PFHpA (S)	89	%.	40-130		1	11/21/25 13:36	11/24/25 13:40		
13C5-PFHxA (S)	90	%.	40-130		1	11/21/25 13:36	11/24/25 13:40		
13C5-PFPeA (S)	89	%.	40-130		1	11/21/25 13:36	11/24/25 13:40		
13C6-PFDA (S)	90	%.	40-130		1	11/21/25 13:36	11/24/25 13:40		
13C8-PFOA (S)	92	%.	40-130		1	11/21/25 13:36	11/24/25 13:40		
13C8-PFOS (S)	94	%.	40-130		1	11/21/25 13:36	11/24/25 13:40		
13C8-PFOA (S)	78	%.	40-130		1	11/21/25 13:36	11/24/25 13:40		
13C9-PFNA (S)	85	%.	40-130		1	11/21/25 13:36	11/24/25 13:40		
d3-MeFOSAA (S)	88	%.	40-170		1	11/21/25 13:36	11/24/25 13:40		
d3-NMeFOSA (S)	75	%.	10-130		1	11/21/25 13:36	11/24/25 13:40		
d5-EtFOSAA (S)	84	%.	25-135		1	11/21/25 13:36	11/24/25 13:40		
d5-NEtFOSA (S)	88	%.	10-130		1	11/21/25 13:36	11/24/25 13:40		
d7-NMeFOSE (S)	55	%.	10-130		1	11/21/25 13:36	11/24/25 13:40		ES7
d9-NEtFOSE (S)	80	%.	10-130		1	11/21/25 13:36	11/24/25 13:40		
13C2-PFTA (S)	69	%.	10-130		1	11/21/25 13:36	11/24/25 13:40		
13C7-PFUdA (S)	88	%.	30-130		1	11/21/25 13:36	11/24/25 13:40		
13C24:2FTS (S)	106	%.	40-200		1	11/21/25 13:36	11/24/25 13:40		
13C26:2FTS (S)	88	%.	40-200		1	11/21/25 13:36	11/24/25 13:40		
13C28:2FTS (S)	94	%.	40-300		1	11/21/25 13:36	11/24/25 13:40		
13C3-PFPPrA (S)	89	%.	5-130		1	11/21/25 13:36	11/24/25 13:40		

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: FIELD BLANK Lab ID: 40304830011 Collected: 11/10/25 10:38 Received: 11/11/25 09:40 Matrix: Water
 Parameters Results Units LOQ LOD DF Prepared Analyzed CAS No. Qual

EPA 1633A Water

Analytical Method: EPA 1633A Preparation Method: EPA 1633A
 Pace Analytical Services - Minneapolis

11CI-PF3OUdS	<1.3	ng/L	6.4	1.3	1	11/21/25 13:36	11/24/25 14:10	763051-92-9	
3:3 FTCA	<2.1	ng/L	8.0	2.1	1	11/21/25 13:36	11/24/25 14:10	356-02-5	
4:2 FTS	<1.5	ng/L	6.4	1.5	1	11/21/25 13:36	11/24/25 14:10	757124-72-4	
5:3 FTCA	<5.4	ng/L	40.2	5.4	1	11/21/25 13:36	11/24/25 14:10	914637-49-3	
6:2 FTS	<1.5	ng/L	6.4	1.5	1	11/21/25 13:36	11/24/25 14:10	27619-97-2	
7:3 FTCA	<5.2	ng/L	40.2	5.2	1	11/21/25 13:36	11/24/25 14:10	812-70-4	
8:2 FTS	<2.4	ng/L	6.4	2.4	1	11/21/25 13:36	11/24/25 14:10	39108-34-4	
9CI-PF3ONS	<1.2	ng/L	6.4	1.2	1	11/21/25 13:36	11/24/25 14:10	756426-58-1	
ADONA	<0.78	ng/L	6.4	0.78	1	11/21/25 13:36	11/24/25 14:10	919005-14-4	
HFPO-DA	<0.97	ng/L	6.4	0.97	1	11/21/25 13:36	11/24/25 14:10	13252-13-6	
NEtFOSAA	<0.43	ng/L	1.6	0.43	1	11/21/25 13:36	11/24/25 14:10	2991-50-6	
NEtFOSA	<0.32	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 14:10	4151-50-2	
NEtFOSE	<3.8	ng/L	16.1	3.8	1	11/21/25 13:36	11/24/25 14:10	1691-99-2	
NFDHA	<0.81	ng/L	3.2	0.81	1	11/21/25 13:36	11/24/25 14:10	151772-58-6	
NMeFOSAA	<0.48	ng/L	1.6	0.48	1	11/21/25 13:36	11/24/25 14:10	2355-31-9	
NMeFOSA	<0.53	ng/L	1.6	0.53	1	11/21/25 13:36	11/24/25 14:10	31506-32-8	
NMeFOSE	<2.9	ng/L	16.1	2.9	1	11/21/25 13:36	11/24/25 14:10	24448-09-7	
PFBS	<0.30	ng/L	1.6	0.30	1	11/21/25 13:36	11/24/25 14:10	375-73-5	
PFDA	<0.36	ng/L	1.6	0.36	1	11/21/25 13:36	11/24/25 14:10	335-76-2	
PFHxA	<0.31	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 14:10	307-24-4	
PFBA	<1.3	ng/L	6.4	1.3	1	11/21/25 13:36	11/24/25 14:10	375-22-4	
PFDS	<0.47	ng/L	1.6	0.47	1	11/21/25 13:36	11/24/25 14:10	335-77-3	
PFDoS	<0.34	ng/L	1.6	0.34	1	11/21/25 13:36	11/24/25 14:10	79780-39-5	
PFEESA	<0.81	ng/L	3.2	0.81	1	11/21/25 13:36	11/24/25 14:10	113507-82-7	
PFHpS	<0.42	ng/L	1.6	0.42	1	11/21/25 13:36	11/24/25 14:10	375-92-8	
PFMBA	<0.47	ng/L	3.2	0.47	1	11/21/25 13:36	11/24/25 14:10	863090-89-5	
PFMPA	<0.60	ng/L	3.2	0.60	1	11/21/25 13:36	11/24/25 14:10	377-73-1	
PFNS	<0.45	ng/L	1.6	0.45	1	11/21/25 13:36	11/24/25 14:10	68259-12-1	
PFOSA	<0.31	ng/L	1.6	0.31	1	11/21/25 13:36	11/24/25 14:10	754-91-6	
PFPeA	<0.45	ng/L	3.2	0.45	1	11/21/25 13:36	11/24/25 14:10	2706-90-3	
PFPeS	<0.26	ng/L	1.6	0.26	1	11/21/25 13:36	11/24/25 14:10	2706-91-4	
PFDoA	<0.34	ng/L	1.6	0.34	1	11/21/25 13:36	11/24/25 14:10	307-55-1	
PFHpA	<0.36	ng/L	1.6	0.36	1	11/21/25 13:36	11/24/25 14:10	375-85-9	
PFHxS	0.62J	ng/L	1.6	0.43	1	11/21/25 13:36	11/24/25 14:10	355-46-4	
PFNA	<0.32	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 14:10	375-95-1	
PFOS	<0.53	ng/L	1.6	0.53	1	11/21/25 13:36	11/24/25 14:10	1763-23-1	
PFOA	<0.46	ng/L	1.6	0.46	1	11/21/25 13:36	11/24/25 14:10	335-67-1	
PFTeDA	<0.27	ng/L	1.6	0.27	1	11/21/25 13:36	11/24/25 14:10	376-06-7	
PFTTrDA	<0.32	ng/L	1.6	0.32	1	11/21/25 13:36	11/24/25 14:10	72629-94-8	
PFUnA	<0.35	ng/L	1.6	0.35	1	11/21/25 13:36	11/24/25 14:10	2058-94-8	
Surrogates									
13C2-PFDoA (S)	79	%	10-130		1	11/21/25 13:36	11/24/25 14:10		
13C3HFPO-DA (S)	97	%	40-130		1	11/21/25 13:36	11/24/25 14:10		
13C3-PFBS (S)	101	%	40-135		1	11/21/25 13:36	11/24/25 14:10		

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: FIELD BLANK		Lab ID: 40304830011			Collected: 11/10/25 10:38	Received: 11/11/25 09:40	Matrix: Water		
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	93	%.	40-130		1	11/21/25 13:36	11/24/25 14:10		
13C4-PFBA (S)	98	%.	5-130		1	11/21/25 13:36	11/24/25 14:10		
13C4-PFHpA (S)	95	%.	40-130		1	11/21/25 13:36	11/24/25 14:10		
13C5-PFHxA (S)	96	%.	40-130		1	11/21/25 13:36	11/24/25 14:10		
13C5-PFPeA (S)	95	%.	40-130		1	11/21/25 13:36	11/24/25 14:10		
13C6-PFDA (S)	97	%.	40-130		1	11/21/25 13:36	11/24/25 14:10		
13C8-PFOA (S)	102	%.	40-130		1	11/21/25 13:36	11/24/25 14:10		
13C8-PFOS (S)	92	%.	40-130		1	11/21/25 13:36	11/24/25 14:10		
13C8-PFOSA (S)	73	%.	40-130		1	11/21/25 13:36	11/24/25 14:10		
13C9-PFNA (S)	92	%.	40-130		1	11/21/25 13:36	11/24/25 14:10		
d3-MeFOSAA (S)	92	%.	40-170		1	11/21/25 13:36	11/24/25 14:10		
d3-NMeFOSA (S)	73	%.	10-130		1	11/21/25 13:36	11/24/25 14:10		
d5-EtFOSAA (S)	82	%.	25-135		1	11/21/25 13:36	11/24/25 14:10		
d5-NEtFOSA (S)	83	%.	10-130		1	11/21/25 13:36	11/24/25 14:10		
d7-NMeFOSE (S)	54	%.	10-130		1	11/21/25 13:36	11/24/25 14:10		ES7
d9-NEtFOSE (S)	79	%.	10-130		1	11/21/25 13:36	11/24/25 14:10		
13C2-PFTA (S)	69	%.	10-130		1	11/21/25 13:36	11/24/25 14:10		
13C7-PFUdA (S)	96	%.	30-130		1	11/21/25 13:36	11/24/25 14:10		
13C24:2FTS (S)	109	%.	40-200		1	11/21/25 13:36	11/24/25 14:10		
13C26:2FTS (S)	89	%.	40-200		1	11/21/25 13:36	11/24/25 14:10		ES7
13C28:2FTS (S)	93	%.	40-300		1	11/21/25 13:36	11/24/25 14:10		
13C3-PFPPrA (S)	96	%.	5-130		1	11/21/25 13:36	11/24/25 14:10		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Darwin Burn Pit

Pace Project No.: 40304830

Sample: PZ-1	Lab ID: 40304830012					Collected: 11/10/25 10:50	Received: 11/11/25 09:40	Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633A Water									
Analytical Method: EPA 1633A Preparation Method: EPA 1633A Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<2.5	ng/L	12.3	2.5	1	11/21/25 13:36	11/24/25 14:20	763051-92-9	
3:3 FTCA	<4.0	ng/L	15.4	4.0	1	11/21/25 13:36	11/24/25 14:20	356-02-5	
4:2 FTS	<2.9	ng/L	12.3	2.9	1	11/21/25 13:36	11/24/25 14:20	757124-72-4	
5:3 FTCA	<10.4	ng/L	77.0	10.4	1	11/21/25 13:36	11/24/25 14:20	914637-49-3	
6:2 FTS	264	ng/L	12.3	2.9	1	11/21/25 13:36	11/24/25 14:20	27619-97-2	
7:3 FTCA	<10	ng/L	77.0	10	1	11/21/25 13:36	11/24/25 14:20	812-70-4	
8:2 FTS	<4.7	ng/L	12.3	4.7	1	11/21/25 13:36	11/24/25 14:20	39108-34-4	
9CI-PF3ONS	<2.2	ng/L	12.3	2.2	1	11/21/25 13:36	11/24/25 14:20	756426-58-1	
ADONA	<1.5	ng/L	12.3	1.5	1	11/21/25 13:36	11/24/25 14:20	919005-14-4	
HFPO-DA	<1.9	ng/L	12.3	1.9	1	11/21/25 13:36	11/24/25 14:20	13252-13-6	
NEtFOSAA	<0.83	ng/L	3.1	0.83	1	11/21/25 13:36	11/24/25 14:20	2991-50-6	
NEtFOSA	<0.61	ng/L	3.1	0.61	1	11/21/25 13:36	11/24/25 14:20	4151-50-2	
NEtFOSE	<7.3	ng/L	30.8	7.3	1	11/21/25 13:36	11/24/25 14:20	1691-99-2	
NFDHA	<1.6	ng/L	6.2	1.6	1	11/21/25 13:36	11/24/25 14:20	151772-58-6	
NMeFOSAA	<0.93	ng/L	3.1	0.93	1	11/21/25 13:36	11/24/25 14:20	2355-31-9	
NMeFOSA	<1.0	ng/L	3.1	1.0	1	11/21/25 13:36	11/24/25 14:20	31506-32-8	
NMeFOSE	<5.5	ng/L	30.8	5.5	1	11/21/25 13:36	11/24/25 14:20	24448-09-7	
PFBS	3250	ng/L	30.8	5.8	10	11/21/25 13:36	11/25/25 23:44	375-73-5	
PFDA	<0.69	ng/L	3.1	0.69	1	11/21/25 13:36	11/24/25 14:20	335-76-2	
PFHxA	11700	ng/L	30.8	6.0	10	11/21/25 13:36	11/25/25 23:44	307-24-4	
PFBA	2080	ng/L	123	24.4	10	11/21/25 13:36	11/25/25 23:44	375-22-4	
PFDS	<0.91	ng/L	3.1	0.91	1	11/21/25 13:36	11/24/25 14:20	335-77-3	
PFDoS	<0.65	ng/L	3.1	0.65	1	11/21/25 13:36	11/24/25 14:20	79780-39-5	
PFEESA	<1.5	ng/L	6.2	1.5	1	11/21/25 13:36	11/24/25 14:20	113507-82-7	
PFHpS	1220	ng/L	3.1	0.80	1	11/21/25 13:36	11/24/25 14:20	375-92-8	
PFMBA	2.5J	ng/L	6.2	0.90	1	11/21/25 13:36	11/24/25 14:20	863090-89-5	
PFMPA	4.8J	ng/L	6.2	1.2	1	11/21/25 13:36	11/24/25 14:20	377-73-1	
PFNS	<0.86	ng/L	3.1	0.86	1	11/21/25 13:36	11/24/25 14:20	68259-12-1	
PFOSA	<0.60	ng/L	3.1	0.60	1	11/21/25 13:36	11/24/25 14:20	754-91-6	
PFPeA	8100	ng/L	61.6	8.6	10	11/21/25 13:36	11/25/25 23:44	2706-90-3	
PFPeS	6440	ng/L	30.8	5.0	10	11/21/25 13:36	11/25/25 23:44	2706-91-4	
PFDoA	<0.65	ng/L	3.1	0.65	1	11/21/25 13:36	11/24/25 14:20	307-55-1	
PFHpA	6640	ng/L	30.8	6.9	10	11/21/25 13:36	11/25/25 23:44	375-85-9	
PFHxS	98700	ng/L	308	82.0	100	11/21/25 13:36	11/26/25 00:15	355-46-4	
PFNA	526	ng/L	3.1	0.61	1	11/21/25 13:36	11/24/25 14:20	375-95-1	
PFOS	1960	ng/L	30.8	10.2	10	11/21/25 13:36	11/25/25 23:44	1763-23-1	
PFOA	22100	ng/L	308	88.3	100	11/21/25 13:36	11/26/25 00:15	335-67-1	
PFTeDA	<0.52	ng/L	3.1	0.52	1	11/21/25 13:36	11/24/25 14:20	376-06-7	
PFTTrDA	<0.62	ng/L	3.1	0.62	1	11/21/25 13:36	11/24/25 14:20	72629-94-8	
PFUnA	<0.67	ng/L	3.1	0.67	1	11/21/25 13:36	11/24/25 14:20	2058-94-8	
Surrogates									
13C2-PFDoA (S)	90	%	10-130		1	11/21/25 13:36	11/24/25 14:20		
13C3HFPO-DA (S)	125	%	40-130		1	11/21/25 13:36	11/24/25 14:20		
13C3-PFBS (S)	272	%	40-135		1	11/21/25 13:36	11/24/25 14:20		ES0

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Sample: PZ-1		Lab ID: 40304830012			Collected: 11/10/25 10:50	Received: 11/11/25 09:40	Matrix: Water		
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Surrogates									
13C3-PFHxS (S)	63	%.	40-130		1	11/21/25 13:36	11/24/25 14:20		
13C4-PFBA (S)	99	%.	5-130		1	11/21/25 13:36	11/24/25 14:20		
13C4-PFHpA (S)	81	%.	40-130		1	11/21/25 13:36	11/24/25 14:20		
13C5-PFHxA (S)	93	%.	40-130		1	11/21/25 13:36	11/24/25 14:20		
13C5-PFPeA (S)	96	%.	40-130		1	11/21/25 13:36	11/24/25 14:20		
13C6-PFDA (S)	96	%.	40-130		1	11/21/25 13:36	11/24/25 14:20		
13C8-PFOA (S)	114	%.	40-130		1	11/21/25 13:36	11/24/25 14:20		
13C8-PFOS (S)	105	%.	40-130		1	11/21/25 13:36	11/24/25 14:20		
13C8-PFOSA (S)	87	%.	40-130		1	11/21/25 13:36	11/24/25 14:20		
13C9-PFNA (S)	94	%.	40-130		1	11/21/25 13:36	11/24/25 14:20		
d3-MeFOSAA (S)	109	%.	40-170		1	11/21/25 13:36	11/24/25 14:20		
d3-NMeFOSA (S)	84	%.	10-130		1	11/21/25 13:36	11/24/25 14:20		
d5-EtFOSAA (S)	93	%.	25-135		1	11/21/25 13:36	11/24/25 14:20		
d5-NEtFOSA (S)	102	%.	10-130		1	11/21/25 13:36	11/24/25 14:20		
d7-NMeFOSE (S)	62	%.	10-130		1	11/21/25 13:36	11/24/25 14:20		ES7
d9-NEtFOSE (S)	92	%.	10-130		1	11/21/25 13:36	11/24/25 14:20		
13C2-PFTA (S)	81	%.	10-130		1	11/21/25 13:36	11/24/25 14:20		
13C7-PFUdA (S)	101	%.	30-130		1	11/21/25 13:36	11/24/25 14:20		
13C24:2FTS (S)	490	%.	40-200		1	11/21/25 13:36	11/24/25 14:20		ES0
13C26:2FTS (S)	211	%.	40-200		1	11/21/25 13:36	11/24/25 14:20		ES0, ES7
13C28:2FTS (S)	351	%.	40-300		1	11/21/25 13:36	11/24/25 14:20		ES0
13C3-PFPPrA (S)	42	%.	5-130		1	11/21/25 13:36	11/24/25 14:20		

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QUALITY CONTROL DATA

Project: Darwin Burn Pit
 Pace Project No.: 40304830

QC Batch: 1041629	Analysis Method: EPA 1633A
QC Batch Method: EPA 1633A	Analysis Description: EPA 1633A Water
	Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 40304830001, 40304830002, 40304830003, 40304830004, 40304830005, 40304830006, 40304830007, 40304830008, 40304830009, 40304830010, 40304830011, 40304830012

METHOD BLANK: 5421740 Matrix: Water

Associated Lab Samples: 40304830001, 40304830002, 40304830003, 40304830004, 40304830005, 40304830006, 40304830007, 40304830008, 40304830009, 40304830010, 40304830011, 40304830012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
11CI-PF3OUdS	ng/L	<1.3	6.4	11/24/25 11:18	
3:3 FTCA	ng/L	<2.1	8.0	11/24/25 11:18	
4:2 FTS	ng/L	<1.5	6.4	11/24/25 11:18	
5:3 FTCA	ng/L	<5.4	40.0	11/24/25 11:18	
6:2 FTS	ng/L	<1.5	6.4	11/24/25 11:18	
7:3 FTCA	ng/L	<5.2	40.0	11/24/25 11:18	
8:2 FTS	ng/L	<2.4	6.4	11/24/25 11:18	
9CI-PF3ONS	ng/L	<1.2	6.4	11/24/25 11:18	
ADONA	ng/L	<0.78	6.4	11/24/25 11:18	
HFPO-DA	ng/L	<0.96	6.4	11/24/25 11:18	
NEtFOSA	ng/L	<0.32	1.6	11/24/25 11:18	
NEtFOSAA	ng/L	<0.43	1.6	11/24/25 11:18	
NEtFOSE	ng/L	<3.8	16.0	11/24/25 11:18	
NFDHA	ng/L	<0.81	3.2	11/24/25 11:18	
NMeFOSA	ng/L	<0.53	1.6	11/24/25 11:18	
NMeFOSAA	ng/L	<0.48	1.6	11/24/25 11:18	
NMeFOSE	ng/L	<2.9	16.0	11/24/25 11:18	
PFBA	ng/L	<1.3	6.4	11/24/25 11:18	
PFBS	ng/L	<0.30	1.6	11/24/25 11:18	
PFDA	ng/L	<0.36	1.6	11/24/25 11:18	
PFDoA	ng/L	<0.34	1.6	11/24/25 11:18	
PFDoS	ng/L	<0.34	1.6	11/24/25 11:18	
PFDS	ng/L	<0.47	1.6	11/24/25 11:18	
PFEESA	ng/L	<0.80	3.2	11/24/25 11:18	
PFHpA	ng/L	<0.36	1.6	11/24/25 11:18	
PFHpS	ng/L	<0.42	1.6	11/24/25 11:18	
PFHxA	ng/L	<0.31	1.6	11/24/25 11:18	
PFHxS	ng/L	<0.43	1.6	11/24/25 11:18	
PFMBA	ng/L	<0.47	3.2	11/24/25 11:18	
PFMPA	ng/L	<0.60	3.2	11/24/25 11:18	
PFNA	ng/L	<0.32	1.6	11/24/25 11:18	
PFNS	ng/L	<0.44	1.6	11/24/25 11:18	
PFOA	ng/L	<0.46	1.6	11/24/25 11:18	
PFOS	ng/L	<0.53	1.6	11/24/25 11:18	
PFOSA	ng/L	<0.31	1.6	11/24/25 11:18	
PFPeA	ng/L	<0.44	3.2	11/24/25 11:18	

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QUALITY CONTROL DATA

Project: Darwin Burn Pit

Pace Project No.: 40304830

METHOD BLANK: 5421740

Matrix: Water

Associated Lab Samples: 40304830001, 40304830002, 40304830003, 40304830004, 40304830005, 40304830006, 40304830007, 40304830008, 40304830009, 40304830010, 40304830011, 40304830012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PFPeS	ng/L	<0.26	1.6	11/24/25 11:18	
PFTeDA	ng/L	<0.27	1.6	11/24/25 11:18	
PFTrDA	ng/L	<0.32	1.6	11/24/25 11:18	
PFUnA	ng/L	<0.35	1.6	11/24/25 11:18	
13C2-PFDoA (S)	%	74	10-130	11/24/25 11:18	
13C2-PFTA (S)	%	66	10-130	11/24/25 11:18	
13C24:2FTS (S)	%	93	40-200	11/24/25 11:18	
13C26:2FTS (S)	%	80	40-200	11/24/25 11:18	
13C28:2FTS (S)	%	82	40-300	11/24/25 11:18	
13C3-PFBS (S)	%	91	40-135	11/24/25 11:18	
13C3-PFHxS (S)	%	87	40-130	11/24/25 11:18	
13C3-PFPrA (S)	%	90	5-130	11/24/25 11:18	
13C3HFPO-DA (S)	%	88	40-130	11/24/25 11:18	
13C4-PFBA (S)	%	89	5-130	11/24/25 11:18	
13C4-PFHpA (S)	%	85	40-130	11/24/25 11:18	
13C5-PFHxA (S)	%	85	40-130	11/24/25 11:18	
13C5-PFPeA (S)	%	86	40-130	11/24/25 11:18	
13C6-PFDA (S)	%	82	40-130	11/24/25 11:18	
13C7-PFUdA (S)	%	84	30-130	11/24/25 11:18	
13C8-PFOA (S)	%	80	40-130	11/24/25 11:18	
13C8-PFOS (S)	%	76	40-130	11/24/25 11:18	
13C8-PFOSA (S)	%	68	40-130	11/24/25 11:18	
13C9-PFNA (S)	%	85	40-130	11/24/25 11:18	
d3-MeFOSAA (S)	%	77	40-170	11/24/25 11:18	
d3-NMeFOSA (S)	%	66	10-130	11/24/25 11:18	
d5-EtFOSAA (S)	%	68	25-135	11/24/25 11:18	
d5-NEtFOSA (S)	%	74	10-130	11/24/25 11:18	
d7-NMeFOSE (S)	%	51	10-130	11/24/25 11:18	ES7
d9-NEtFOSE (S)	%	65	10-130	11/24/25 11:18	

LABORATORY CONTROL SAMPLE: 5421741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ng/L	150	153	102	55-160	
3:3 FTCA	ng/L	198	165	83	65-130	
4:2 FTS	ng/L	150	161	107	70-145	
5:3 FTCA	ng/L	992	1030	104	70-135	
6:2 FTS	ng/L	154	166	108	65-155	
7:3 FTCA	ng/L	992	1040	105	50-145	
8:2 FTS	ng/L	154	173	112	60-150	
9Cl-PF3ONS	ng/L	150	170	113	70-155	
ADONA	ng/L	150	170	113	65-145	

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QUALITY CONTROL DATA

Project: Darwin Burn Pit
 Pace Project No.: 40304830

LABORATORY CONTROL SAMPLE: 5421741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
HFPO-DA	ng/L	160	173	108	70-140	
NEtFOSA	ng/L	38.4	41.8	109	65-145	
NEtFOSAA	ng/L	38.4	42.1	110	70-145	
NEtFOSE	ng/L	384	422	110	70-135	
NFDHA	ng/L	80	85.0	106	50-150	
NMeFOSA	ng/L	38.4	42.6	111	60-150	
NMeFOSAA	ng/L	38.4	42.0	109	50-140	
NMeFOSE	ng/L	384	440	115	70-145	
PFBA	ng/L	160	173	108	70-140	
PFBS	ng/L	35.2	37.7	107	60-145	
PFDA	ng/L	38.4	43.3	113	70-140	
PFDaA	ng/L	38.4	44.4	116	70-140	
PFDoS	ng/L	38.4	35.1	91	50-145	
PFDS	ng/L	38.4	38.8	101	60-145	
PFEESA	ng/L	70.4	78.0	111	70-140	
PFHpA	ng/L	38.4	44.0	115	70-150	
PFHpS	ng/L	38.4	41.0	107	70-150	
PFHxA	ng/L	38.4	42.6	111	70-145	
PFHxS	ng/L	35.2	38.8	110	65-145	
PFMBA	ng/L	80	88.0	110	60-150	
PFMPA	ng/L	80	89.6	112	55-140	
PFNA	ng/L	38.4	42.0	109	70-150	
PFNS	ng/L	38.4	40.0	104	65-145	
PFOA	ng/L	38.4	43.2	113	70-150	
PFOS	ng/L	38.4	39.3	102	55-150	
PFOSA	ng/L	38.4	41.0	107	70-145	
PFPeA	ng/L	80	86.6	108	65-135	
PFPeS	ng/L	38.4	40.1	104	65-140	
PFTeDA	ng/L	38.4	43.9	114	60-140	
PFTrDA	ng/L	38.4	42.5	111	65-140	
PFUnA	ng/L	38.4	40.1	104	70-145	
13C2-PFDaA (S)	%			82	10-130	
13C2-PFTA (S)	%			76	10-130	
13C24:2FTS (S)	%			97	40-200	
13C26:2FTS (S)	%			89	40-200	
13C28:2FTS (S)	%			91	40-300	
13C3-PFBS (S)	%			97	40-135	
13C3-PFHxS (S)	%			93	40-130	
13C3-PFPrA (S)	%			94	5-130	
13C3HFPO-DA (S)	%			95	40-130	
13C4-PFBA (S)	%			94	5-130	
13C4-PFHpA (S)	%			93	40-130	
13C5-PFHxA (S)	%			94	40-130	

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QUALITY CONTROL DATA

Project: Darwin Burn Pit
 Pace Project No.: 40304830

LABORATORY CONTROL SAMPLE: 5421741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
13C5-PFPeA (S)	%			93	40-130	
13C6-PFDA (S)	%			93	40-130	
13C7-PFUdA (S)	%			93	30-130	
13C8-PFOA (S)	%			91	40-130	
13C8-PFOS (S)	%			89	40-130	
13C8-PFOSA (S)	%			78	40-130	
13C9-PFNA (S)	%			89	40-130	
d3-MeFOSAA (S)	%			85	40-170	
d3-NMeFOSA (S)	%			73	10-130	
d5-EtFOSAA (S)	%			78	25-135	
d5-NEtFOSA (S)	%			83	10-130	
d7-NMeFOSE (S)	%			56	10-130	ES7
d9-NEtFOSE (S)	%			70	10-130	

LABORATORY CONTROL SAMPLE: 5421742

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11CI-PF3OUdS	ng/L	12	10.7	89	55-160	
3:3 FTCA	ng/L	15.9	12.1	76	65-130	
4:2 FTS	ng/L	12	12.3	102	70-145	
5:3 FTCA	ng/L	79.4	74.8	94	70-135	
6:2 FTS	ng/L	12.3	12.5	102	65-155	
7:3 FTCA	ng/L	79.4	72.9	92	50-145	
8:2 FTS	ng/L	12.3	13.4	109	60-150	
9CI-PF3ONS	ng/L	12	12.7	106	70-155	
ADONA	ng/L	12	12.8	106	65-145	
HFPO-DA	ng/L	12.8	13.5	106	70-140	
NEtFOSA	ng/L	3.1	3.3	106	65-145	
NEtFOSAA	ng/L	3.1	3.4	110	70-145	
NEtFOSE	ng/L	30.7	31.0	101	70-135	
NFDHA	ng/L	6.4	6.7	104	50-150	
NMeFOSA	ng/L	3.1	3.1	101	60-150	
NMeFOSAA	ng/L	3.1	3.5	113	50-140	
NMeFOSE	ng/L	30.7	31.7	103	70-145	
PFBA	ng/L	12.8	12.7	99	70-140	
PFBS	ng/L	2.8	3.1	111	60-145	
PFDA	ng/L	3.1	3.3	107	70-140	
PFDoA	ng/L	3.1	3.0	97	70-140	
PFDoS	ng/L	3.1	2.4	78	50-145	
PFDS	ng/L	3.1	2.8	91	60-145	
PFEESA	ng/L	5.6	5.9	104	70-140	
PFHpA	ng/L	3.1	3.3	107	70-150	

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QUALITY CONTROL DATA

Project: Darwin Burn Pit
 Pace Project No.: 40304830

LABORATORY CONTROL SAMPLE: 5421742

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PFHpS	ng/L	3.1	3.1	101	70-150	
PFHxA	ng/L	3.1	3.2	104	70-145	
PFHxS	ng/L	2.8	3.6	127	65-145	
PFMBA	ng/L	6.4	6.7	105	60-150	
PFMPA	ng/L	6.4	7.0	109	55-140	
PFNA	ng/L	3.1	3.6	117	70-150	
PFNS	ng/L	3.1	2.9	94	65-145	
PFOA	ng/L	3.1	3.6	118	70-150	
PFOS	ng/L	3.1	3.0	99	55-150	
PFOSA	ng/L	3.1	3.2	105	70-145	
PFPeA	ng/L	6.4	6.4	100	65-135	
PFPeS	ng/L	3.1	3.1	101	65-140	
PFTeDA	ng/L	3.1	3.3	109	60-140	
PFTrDA	ng/L	3.1	2.9	96	65-140	
PFUnA	ng/L	3.1	2.8	91	70-145	
13C2-PFDoA (S)	%			77	10-130	
13C2-PFTA (S)	%			68	10-130	
13C24:2FTS (S)	%			99	40-200	
13C26:2FTS (S)	%			87	40-200	
13C28:2FTS (S)	%			91	40-300	
13C3-PFBS (S)	%			95	40-135	
13C3-PFHxS (S)	%			91	40-130	
13C3-PFPrA (S)	%			92	5-130	
13C3HFPO-DA (S)	%			91	40-130	
13C4-PFBA (S)	%			93	5-130	
13C4-PFHpA (S)	%			91	40-130	
13C5-PFHxA (S)	%			93	40-130	
13C5-PFPeA (S)	%			92	40-130	
13C6-PFDA (S)	%			91	40-130	
13C7-PFUdA (S)	%			91	30-130	
13C8-PFOA (S)	%			96	40-130	
13C8-PFOS (S)	%			94	40-130	
13C8-PFOSA (S)	%			76	40-130	
13C9-PFNA (S)	%			89	40-130	
d3-MeFOSAA (S)	%			86	40-170	
d3-NMeFOSA (S)	%			74	10-130	
d5-EtFOSAA (S)	%			82	25-135	
d5-NEtFOSA (S)	%			85	10-130	
d7-NMeFOSE (S)	%			60	10-130	ES7
d9-NEtFOSE (S)	%			82	10-130	

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QUALITY CONTROL DATA

Project: Darwin Burn Pit

Pace Project No.: 40304830

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5421743

5421744

Parameter	Units	40304830003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11CI-PF3OUdS	ng/L	<3.1	396	377	345	375	87	99	55-160	8	30	
3:3 FTCA	ng/L	<4.9	522	497	519	527	99	106	65-130	2	30	
4:2 FTS	ng/L	<3.6	396	377	393	414	99	110	70-145	5	30	
5:3 FTCA	ng/L	<12.9	2610	2490	2810	2940	108	118	70-135	4	30	
6:2 FTS	ng/L	37.3	404	385	439	471	99	113	65-155	7	30	
7:3 FTCA	ng/L	<12.4	2610	2490	2410	2600	92	105	50-145	8	30	
8:2 FTS	ng/L	<5.8	404	385	438	410	108	107	60-150	6	30	
9CI-PF3ONS	ng/L	<2.8	396	377	396	418	100	111	70-155	5	30	
ADONA	ng/L	<1.9	396	377	486	494	123	131	65-145	2	30	
HFPO-DA	ng/L	<2.3	421	401	444	447	106	111	70-140	1	30	
NEtFOSA	ng/L	<0.75	101	96.3	101	101	100	105	65-145	0	30	
NEtFOSAA	ng/L	<1.0	101	96.3	100	102	99	106	70-145	2	30	
NEtFOSE	ng/L	<9.0	1010	963	1010	1040	100	108	70-135	3	30	
NFDHA	ng/L	<1.9	211	201	222	230	105	115	50-150	4	30	
NMeFOSA	ng/L	<1.3	101	96.3	97.1	105	96	109	60-150	8	30	
NMeFOSAA	ng/L	<1.1	101	96.3	95.8	106	95	110	50-140	10	30	
NMeFOSE	ng/L	<6.9	1010	963	1080	1110	107	115	70-145	2	30	
PFBA	ng/L	1780	421	401	2180	2300	95	131	70-140	6	30	
PFBS	ng/L	2200	92.6	88.3	2120	2770	-87	644	60-145	27	30	E,M1
PFDA	ng/L	1.2J	101	96.3	109	106	106	109	70-140	3	30	
PFDoA	ng/L	<0.80	101	96.3	107	109	106	113	70-140	1	30	
PFDoS	ng/L	<0.81	101	96.3	78.5	88.5	78	92	50-145	12	30	
PFDS	ng/L	<1.1	101	96.3	86.9	89.8	86	93	60-145	3	30	
PFEESA	ng/L	<1.9	185	177	216	228	117	129	70-140	6	30	
PFHpA	ng/L	2350	101	96.3	2470	2330	112	-24	70-150	6	30	E,M1
PFHpS	ng/L	35.8	101	96.3	135	143	98	112	70-150	6	30	
PFHxA	ng/L	6420	101	96.3	6000	9360	-417	3050	70-145	44	30	E,M1,R1
PFHxS	ng/L	38600	92.6	88.3	33000	53700	-6050	17100	65-145	48	30	E,M1,R1
PFMBA	ng/L	1.3J	211	201	249	257	118	128	60-150	3	30	
PFMPA	ng/L	2.6J	211	201	274	279	129	138	55-140	2	30	
PFNA	ng/L	114	101	96.3	212	218	96	107	70-150	3	30	
PFNS	ng/L	<1.1	101	96.3	97.2	102	96	106	65-145	5	30	
PFOA	ng/L	13200	101	96.3	13600	14700	411	1520	70-150	7	30	E,M1
PFOS	ng/L	320	101	96.3	426	460	105	145	55-150	8	30	
PFOSA	ng/L	1.1J	101	96.3	106	106	104	109	70-145	0	30	
PFPeA	ng/L	6140	211	201	5830	6440	-148	150	65-135	10	30	E,M1
PFPeS	ng/L	2480	101	96.3	1690	2770	-783	298	65-140	48	30	E,M1,R1
PFTeDA	ng/L	<0.64	101	96.3	108	110	107	114	60-140	2	30	
PFTrDA	ng/L	<0.76	101	96.3	104	109	103	113	65-140	5	30	
PFUnA	ng/L	<0.83	101	96.3	104	103	103	107	70-145	1	30	
13C2-PFDoA (S)	%						78	81	10-130			
13C2-PFTA (S)	%						72	75	10-130			

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QUALITY CONTROL DATA

Project: Darwin Burn Pit

Pace Project No.: 40304830

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5421743 5421744

Parameter	Units	40304830003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
13C24:2FTS (S)	%						254	283	40-200			ES0
13C26:2FTS (S)	%						195	209	40-200			ES0
13C28:2FTS (S)	%						224	255	40-300			
13C3-PFBS (S)	%						197	214	40-135			ES0
13C3-PFHxS (S)	%						75	81	40-130			
13C3-PFPrA (S)	%						38	36	5-130			
13C3HFPO-DA (S)	%						99	104	40-130			
13C4-PFBA (S)	%						94	95	5-130			
13C4-PFHpA (S)	%						82	87	40-130			
13C5-PFHxA (S)	%						90	92	40-130			
13C5-PFPeA (S)	%						89	91	40-130			
13C6-PFDA (S)	%						86	92	40-130			
13C7-PFUdA (S)	%						86	94	30-130			
13C8-PFOA (S)	%						98	107	40-130			
13C8-PFOS (S)	%						91	90	40-130			
13C8-PFOSA (S)	%						71	76	40-130			
13C9-PFNA (S)	%						92	94	40-130			
d3-MeFOSAA (S)	%						74	75	40-170			
d3-NMeFOSA (S)	%						71	72	10-130			
d5-EtFOSAA (S)	%						66	73	25-135			
d5-NEtFOSA (S)	%						81	86	10-130			
d7-NMeFOSE (S)	%						53	55	10-130			ES7
d9-NEtFOSE (S)	%						73	75	10-130			

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QUALITY CONTROL DATA

Project: Darwin Burn Pit
 Pace Project No.: 40304830
 QC Batch: 523781 Analysis Method: SM 4500F/C
 QC Batch Method: SM 4500F/C Analysis Description: SM4500FC Fluoride Water
 Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40304830003, 40304830004, 40304830005, 40304830006, 40304830008

METHOD BLANK: 2986850 Matrix: Water

Associated Lab Samples: 40304830003, 40304830004, 40304830005, 40304830006, 40304830008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fluoride	mg/L	<0.019	0.10	12/05/25 10:24	

LABORATORY CONTROL SAMPLE: 2986851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2	2.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2986852 2986853

Parameter	Units	40304830003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.15	2	2	2.3	2.4	108	110	90-110	2	20	

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QUALIFIERS

Project: Darwin Burn Pit
 Pace Project No.: 40304830

DEFINITIONS

- DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
- ND - Not Detected at or above LOD.
- J - The reported result is an estimated value.
- LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.
- LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.
- DL - Adjusted Method Detection Limit.
- S - Surrogate
- 1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
- Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
- LCS(D) - Laboratory Control Sample (Duplicate)
- MS(D) - Matrix Spike (Duplicate)
- DUP - Sample Duplicate
- RPD - Relative Percent Difference
- NC - Not Calculable.
- SG - Silica Gel - Clean-Up
- U - Analyte was not detected and is reported as less than the LOD or as defined by the customer.
- N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
- Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
- TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- E Analyte concentration exceeded the calibration range. The reported result is estimated.
- ES0 Extracted Internal Standard recovery outside laboratory control limits.
- ES7 The extracted internal standard recovery in an associated CCV is outside control limits. The recovery of the associated target compounds are within control limits.
- I The ion ratio is outside control limits.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- R1 RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Darwin Burn Pit
 Pace Project No.: 40304830

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40304830001	MW-1	EPA 1633A	1041629	EPA 1633A	1042810
40304830002	MW-2	EPA 1633A	1041629	EPA 1633A	1042810
40304830003	MW-3	EPA 1633A	1041629	EPA 1633A	1042810
40304830004	MW-4	EPA 1633A	1041629	EPA 1633A	1042810
40304830005	MW-5	EPA 1633A	1041629	EPA 1633A	1042810
40304830006	MW-6	EPA 1633A	1041629	EPA 1633A	1042810
40304830007	MW-7	EPA 1633A	1041629	EPA 1633A	1042810
40304830008	DUPLICATE MW-6	EPA 1633A	1041629	EPA 1633A	1042810
40304830009	TRIP BLANK	EPA 1633A	1041629	EPA 1633A	1042810
40304830010	EQUIPMENT BLANK	EPA 1633A	1041629	EPA 1633A	1042810
40304830011	FIELD BLANK	EPA 1633A	1041629	EPA 1633A	1042810
40304830012	PZ-1	EPA 1633A	1041629	EPA 1633A	1042810
40304830003	MW-3	SM 4500F/C	523781		
40304830004	MW-4	SM 4500F/C	523781		
40304830005	MW-5	SM 4500F/C	523781		
40304830006	MW-6	SM 4500F/C	523781		
40304830008	DUPLICATE MW-6	SM 4500F/C	523781		

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Sample Preservation Receipt Form

Client Name: Orin Technologies

Project # 40304830

All containers needing preservation have been checked and noted below:
 Lab Lot# of pH paper:

Yes No N/A

Lab Std #/ID of preservation (if pH adjusted):

Initial when completed:

Date/Time:

Pace Lab #	Glass						Plastic						Vials					Jars				General		VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)					
	AG1U	BG1U	AG1H	AG4S	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU								SP5T	ZPLC	GN 1	GN 2	
001								2																											2.5 / 5
002								2																											2.5 / 5
003								2																											2.5 / 5
004								2																											2.5 / 5
005								2																											2.5 / 5
006								2																											2.5 / 5
007								2																											2.5 / 5
008								3																											2.5 / 5
009								2																											2.5 / 5
010								2																											2.5 / 5
011								2																											2.5 / 5
012								2																											2.5 / 5
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018																																			2.5 / 5
019																																			2.5 / 5
020																																			2.5 / 5

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : Yes No N/A *If yes look in headspace column


AG1U 1 liter amber glass	BP1U 1 liter plastic unpres	VG9C 40 mL clear ascorbic w/ HCl	JGFU 4 oz amber jar unpres
BG1U 1 liter clear glass	BP3U 250 mL plastic unpres	DG9T 40 mL amber Na Thio	JG9U 9 oz amber jar unpres
AG1H 1 liter amber glass HCL	BP3B 250 mL plastic NaOH	VG9U 40 mL clear vial unpres	WGFU 4 oz clear jar unpres
AG4S 125 mL amber glass H2SO4	BP3N 250 mL plastic HNO3	VG9H 40 mL clear vial HCL	WPFU 4 oz plastic jar unpres
AG5U 100 mL amber glass unpres	BP3S 250 mL plastic H2SO4	VG9M 40 mL clear vial MeOH	SP5T 120 mL plastic Na Thiosulfate
AG2S 500 mL amber glass H2SO4	BP2Z 500 mL plastic NaOH + Zn	VG9D 40 mL clear vial DI	ZPLC ziploc bag
BG3U 250 mL clear glass unpres			GN 1
			GN 2

Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name: Orin Technologies

WO#: **40304830**



40304830

Courier: CS Logistics Fed Ex Speedee UPS Purple Mountain
 Client Pace Other: _____

Tracking #: 4050 6352 0058

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used SR - 143 Type of Ice: Wet Blue Dry None Meltwater Only

Cooler Temperature Uncorr: 3.0 / Corr: 3.0

Temp Blank Present: yes no Biological Tissue is Frozen: yes no

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
 Date: 3/11/25 / Initials: mt
 Labeled By Initials: mt

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <u>Only page #1 mt 3/11/25</u>
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- DI VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Correct Type: <u>Pace Green Bay</u> , Pace IR, Non-Pace		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC: <u>mt 3/11/25</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		<u>008-1BP30 has time of 12/2 mt 3/11/25</u>
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ If checked, see attached form for additional comments

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir

Appendix C
Work Plan Map



LEGEND

Marquette University Proposed Location

- Bio Injection Piezometers
- Bio Injection Piezometers with Electrodes
- Monitoring Well and Soil Boring
- Soil Boring
- Untreated Bio Injection with Electrodes Area
- Performance Monitoring Wells
- BAM Injection only (no microbes or electrodes)
- Treated Area with Monitoring Wells and Soil Borings
- Install a monitoring well and injection point to do a bio-only injection

ORIN Proposed

- Monitoring Well
- Groundwater Injection Area
- Soil Blending Area

SWI SI Figure 4

- Monitoring Well Location
- Piezometer Location
- July 2020 Soil/Groundwater Sample Location
- Soil Boring Location
- Estimated Fire Training Area

REFERENCES

- BASEMAP: ESRI, TOMTOM, GARMIN, FAO, NOAA, USGS, EPA, USFWS, MAXAR, MICROSOFT, ESRI COMMUNITY MAPS CONTRIBUTORS, COUNTY OF DANE, © OPENSTREETMAP, MICROSOFT, ESRI, TOMTOM, GARMIN, SAFEGRAPH, GEOTECHNOLOGIES, INC, METI/NASA, USGS, EPA, NPS, US CENSUS BUREAU, USDA, USFWS, ESRI, USGS.
- COORDINATE SYSTEM: NAD 1983 HARN WISCONSIN TM.
- PARCEL SOURCE: WISCONSIN STATEWIDE PARCEL LAYER VERSION 10.0.0, JUNE 30TH 2024.
- PROPOSED ORIN LOCATIONS ESTIMATED, SEPTEMBER 19TH, 2024, DRAFT WORK PLAN - SOURCE AREA INTERIM RESPONSE MEASURE AND PERFORMANCE MONITORING, DARWIN BURN PIT.

CLIENT
 MARQUETTE UNIVERSITY - DEPT OF BIOLOGICAL SCIENCES
 WEHR LIFE SCIENCES, 511
 1428 W. CLYBOURN STREET
 MILWAUKEE, WISCONSIN 53233

PROJECT
 MICROBIAL ECOLOGY DBP DCRA PFAS STUDY

TITLE
 PROPOSED SOIL BORING AND MONITORING WELL LOCATIONS

	CONSULTANT	YYYY-MM-DD	4/1/2025
	DESIGNED		KMC
	PREPARED		KMC
	REVIEWED		LM
	APPROVED		LM

PROJECT NO. US0044150.3376 FIGURE 1.0-1

PATH: I:\Marquette\Inv_Pfas\GIS\Map_Series\Map_Series.aprx PRINTED ON: AT: 4:46:05 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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